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FILE COVERS 1907-1966  
FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

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(FILE 'HOME' ENTERED AT 15:47:41 ON 07 SEP 2004)

FILE 'REGISTRY' ENTERED AT 15:47:49 ON 07 SEP 2004

L1               STRUCTURE UPLOADED  
L2               9 S L1  
L3               659 S L1 FULL

FILE 'HCAPLUS' ENTERED AT 15:53:02 ON 07 SEP 2004

L4               182 S L3

FILE 'REGISTRY' ENTERED AT 15:53:30 ON 07 SEP 2004

L5               STRUCTURE UPLOADED  
L6               8 S L5  
L7               640 S L5 FULL

FILE 'HCAPLUS' ENTERED AT 15:54:31 ON 07 SEP 2004

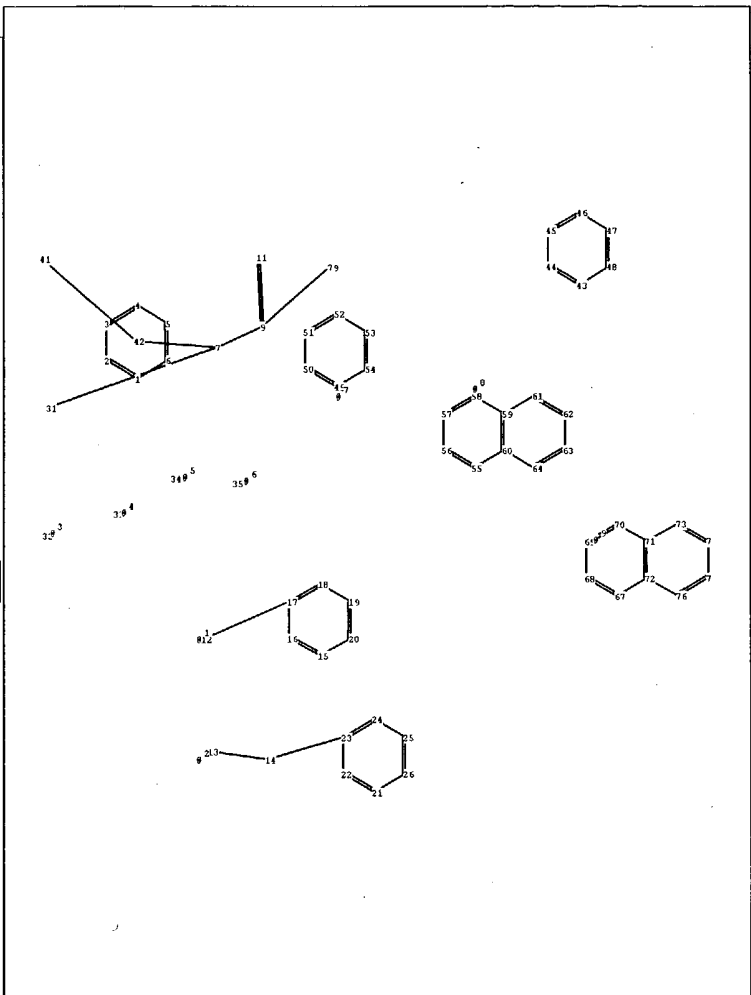
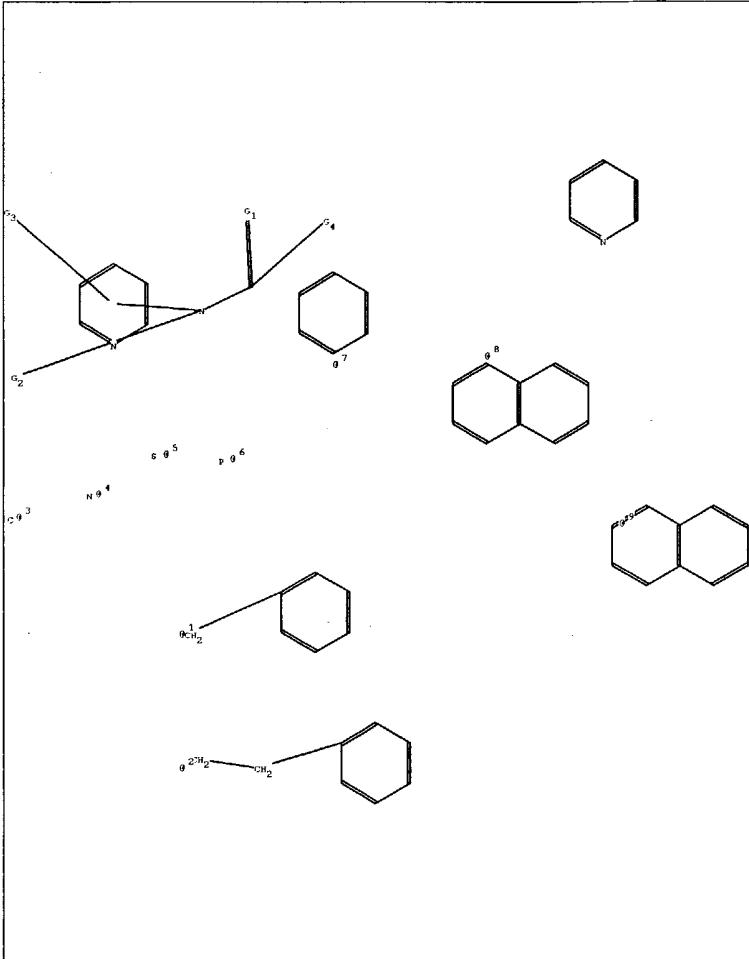
L8               177 S L7

FILE 'REGISTRY' ENTERED AT 15:55:15 ON 07 SEP 2004

L9               STRUCTURE UPLOADED  
L10              16 S L9  
L11              498 S L10 FULL

FILE 'HCAPLUS' ENTERED AT 15:59:33 ON 07 SEP 2004

L12              162 S L11  
L13              0 S L12 AND LU, Z?/AU  
L14              0 S L12 AND MADUSKUIE, T?/AU  
L15              0 S L12 AND VOSS, M?/AU  
L16              0 S L12 AND DUAN, J?/AU  
L17              0 S L12 AND OTT, G?/AU  
L18              0 S L1



chain nodes :  
7 9 11 12 13 14 31 32 33 34 35 41 79  
ring nodes :  
1 2 3 4 5 6 15 16 17 18 19 20 21 22 23 24 25 26 43 44 45 46 47 48  
49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 67 68 69 70 71 72  
73 74 75 76  
chain bonds :  
7-9 7-31 9-11 9-79 12-17 13-14 14-23  
ring bonds :  
1-2 1-6 2-3 3-4 4-5 5-6 15-16 15-20 16-17 17-18 18-19 19-20 21-22 21-26  
22-23 23-24 24-25 25-26 43-44 43-48 44-45 45-46 46-47 47-48 49-50 49-54 50-51  
51-52 52-53 53-54 55-56 55-60 56-57 57-58 58-59 59-60 59-61 60-64 61-62 62-63  
63-64 67-68 67-72 68-69 69-70 70-71 71-72 71-73 72-76 73-74 74-75 75-76  
exact/norm bonds :  
7-9 7-31 9-11 9-79  
exact bonds :  
12-17 13-14 14-23  
normalized bonds :  
1-2 1-6 2-3 3-4 4-5 5-6 15-16 15-20 16-17 17-18 18-19 19-20 21-22 21-26  
22-23 23-24 24-25 25-26 43-44 43-48 44-45 45-46 46-47 47-48 49-50 49-54 50-51  
51-52 52-53 53-54 55-56 55-60 56-57 57-58 58-59 59-60 59-61 60-64 61-62 62-63  
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isolated ring systems :  
containing 15 : 21 : 43 : 49 : 55 : 67 :

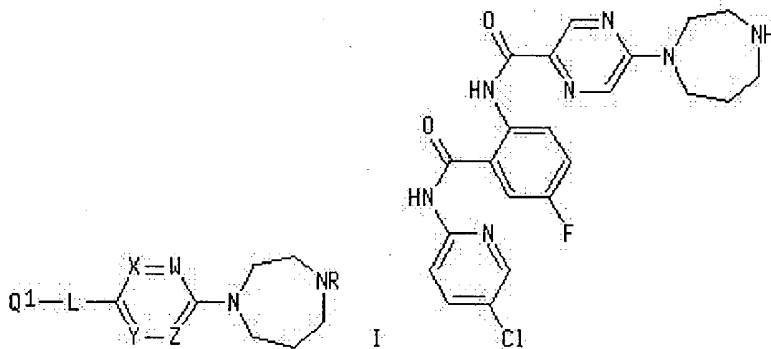
G1:O,S  
G2:H,Ph,Ak,[\*1],[\*2]  
G3:[\*1],[\*2],[\*3],[\*4],[\*5],[\*6]  
G4:[\*7],[\*8],[\*9]  
Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 11:CLASS  
12:CLASS 13:CLASS 14:CLASS 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom  
21:Atom 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 31:CLASS 32:CLASS 33:CLASS  
34:CLASS 35:CLASS 41:CLASS 42:CLASS 43:Atom 44:Atom 45:Atom 46:Atom 47:Atom  
48:Atom 49:CLASS 50:CLASS 51:Atom 52:Atom 53:Atom 54:Atom 55:Atom 56:Atom  
57:Atom 58:Atom 59:Atom 60:Atom 61:Atom 62:Atom 63:Atom 64:Atom 67:Atom 68:Atom  
69:Atom 70:Atom 71:Atom 72:Atom 73:Atom 74:Atom 75:Atom 76:Atom 79:CLASS

Session text above this point is available in the transcript.  
available from the Transcript Assistant on the toolbar.

<u>WO 2002010154</u>	A2	20020207	<u>WO 2001-US16528</u>	20010718
<u>WO 2002010154</u>	A3	20020627		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
<u>EP 1307444</u>	A2	20030507	<u>EP 2001-958825</u>	20010718
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
<u>US 2004097491</u>	A1	20040520	<u>US 2003-332120</u>	20030102
<u>PRIORITY APPLN. INFO.:</u>			<u>US 2000-221092P</u>	P 20000727
			<u>WO 2001-US16528</u>	W 20010718

OTHER SOURCE(S): MARPAT 136:151189  
GI



AB Substituted hexahydrodiazepines I [R = H, alkyl, acyl, acetyloxy, acetyl, aminoacetyl, alkylamido, etc.; one or two of X, W, Y, and Z equals N and each of the others of X, W, Y and Z is CH; when L = CO or CH<sub>2</sub>, Q<sub>1</sub> = (un)substituted pyridinyl- or phenyl-amidophenylamine, in addn. when L = CO, Q<sub>1</sub> may equal Q<sub>2</sub>X<sub>2</sub>SO<sub>2</sub>N(CH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>N- wherein Q<sub>2</sub> = (un)substituted Ph, benzo[b]thiophen-2-yl or naphthalen-2-yl (X<sub>2</sub> = direct bond, CH<sub>2</sub>, ethylene, or ethen-1,2-diyl)], and their pharmaceutically acceptable salts are prepd. and disclosed as factor Xa inhibitors. Thus, II was prepd. by amidation of 2-amino-5-fluoro-N-(5-chloropyridin-2-yl)benzamide with 5-hydroxy-pyrazine-2-carboxylic acid (via its acid chloride) followed by substitution with 1-BOC-hexahydro-1,4-diazepine and subsequent deprotection of the diazepinyl nitrogen. As factor Xa inhibitors, the compds. of the invention are claimed to be useful in the treatment of thromboembolic disorders (no data).

IT **395683-78-0P**

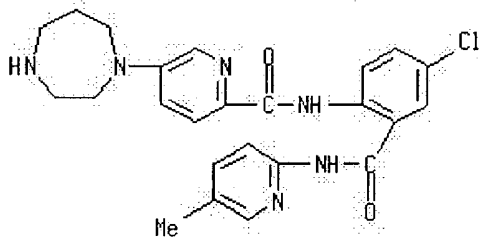
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (prepn. of pyrazinyl-, pyridazinyl-, pyrimidinyl-, and



pyridinyl-hexahydrodiazepines as factor Xa inhibitors)

RN 395683-78-0 HCAPLUS

CN 2-Pyridinecarboxamide, N-[4-chloro-2-[(5-methyl-2-pyridinyl)amino]carbonyl]phenyl]-5-(hexahydro-1H-1,4-diazepin-1-yl)- (9CI)  
(CA INDEX NAME)



L12 ANSWER 41 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full  
TextCiting  
References

ACCESSION NUMBER: 2002:14174 HCAPLUS  
DOCUMENT NUMBER: 136:216362  
TITLE: A Generic Recognition-Based Approach to the Acceleration of Cycloaddition Reactions  
AUTHOR(S): Howell, Sarah J.; Spencer, Neil; Philp, Douglas  
CORPORATE SOURCE: Centre for Biomolecular Sciences School of Chemistry, University of St. Andrews, St Andrews, KY16 9ST, UK  
SOURCE: Organic Letters (2002), 4(2), 273-276  
CODEN: ORLEF7; ISSN: 1523-7060  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Dicarboxylic acids accelerate the rate of cycloaddn. reactions between either an azide or a furan and a maleimide through the formation of a reactive 1:1:1 complex stabilized by four hydrogen bonds.

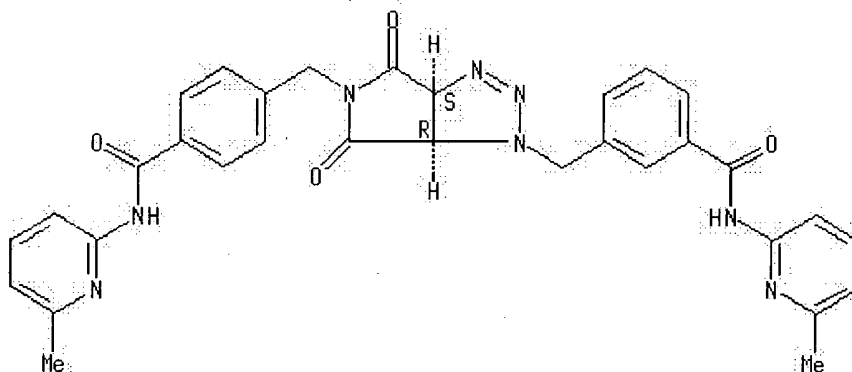
IT 402750-23-6

RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)  
(recognition-based approach to acceleration of cycloaddn. reactions)

RN 402750-23-6 HCAPLUS

CN Benzamide, N-(6-methyl-2-pyridinyl)-3-[[[(3aR,6aS)-4,5,6,6a-tetrahydro-5-[[4-[[[(6-methyl-2-pyridinyl)amino]carbonyl]phenyl]methyl]-4,6-dioxopyrrolo[3,4-d]-1,2,3-triazol-1(3aH)-yl]methyl]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 42 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN



ACCESSION NUMBER: 2002:11104 HCAPLUS  
 DOCUMENT NUMBER: 136:69743  
 TITLE: Preparation of pyridyl benzamides and related compounds as Factor Xa inhibitors.  
 INVENTOR(S): Zhu, Bing-Yan; Zhang, Penglie; Wang, Lingyan; Huang, Wenrong; Goldman, Erick A.; Li, Wenhao; Zuckett, Jingmei; Song, Yonghong; Scarborough, Robert  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 259 pp., Cont.-in-part of U.S. Ser. No. 663,420.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 6  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002002183	A1	20020103	US 2001-794225	20010228
US 6376515	B2	20020423		
US 2003162690	A1	20030828	US 2002-126976	20020422
US 2004097561	A1	20040520	US 2003-687334	20031015
PRIORITY APPLN. INFO.:			US 2000-185746P	P 20000229
			US 2000-663420	A2 20000915
			US 2001-794225	A1 20010228
			US 2002-126976	A1 20020422

OTHER SOURCE(S): MARPAT 136:69743

AB AQDEGJX [A = alkyl, cycloalkyl, NR1R2, NR1R2C(:NR3), (substituted) Ph, naphthyl, heterocyclyl, etc.; R1-R3 = H, OR5, NR5R6, alkyl, alkenyl, etc.; R1R2 or R2R3 = atoms to form (substituted) cycloalkyl, heterocyclyl; R5, R6 = H, alkyl, alkenyl, alkynyl, cycloalkyl, (substituted) alkylphenyl, alkyl naphthyl; R5R6 = atoms to form a 3-8 membered (substituted) ring; Q = bond, CH2, CO, O, S, SO, SO2, NR7, SO2NR7, etc.; R7 = H, alkyl, alkenyl, alkynyl, cycloalkyl, alkylcycloalkyl, (substituted) alkylphenyl, alkyl naphthyl; D = bond, (substituted) Ph, naphthyl, mono- or bicyclic heterocyclyl; E = bond, alkyl, O, S, SO, SO2, alkylcarbonyl, etc.; G = (substituted) alkenyl, cycloalkenyl, phenylene, 3-8 membered (fused) (arom.) heterocyclyl; J = bond, NR9CO, O, S, SO, SO2, CH2, NR9SO2, etc.; X = (substituted) Ph, naphthyl, (fused) heteroaryl], were prepd. as antithrombotics (no data). Thus, N-(5-bromo-2-pyridinyl)-2-aminophenylcarboxamide (prepn. given), 4-cyanobenzoyl chloride, and pyridine were stirred overnight in CH2Cl2 to give 70% N-(5-bromo-2-pyridinyl)-[2-(4-cyanophenylcarbonyl)amino]phenylcarboxamide. The latter in MeOH at 0° was satd. with HCl and stirred overnight followed by solvent evapn. The residue was refluxed 2 h with NH4OAc in MeOH to give 70% N-(5-bromo-2-pyridinyl)-[2-(4-amidinophenylcarbonyl)amino]phenylcarboxamide.

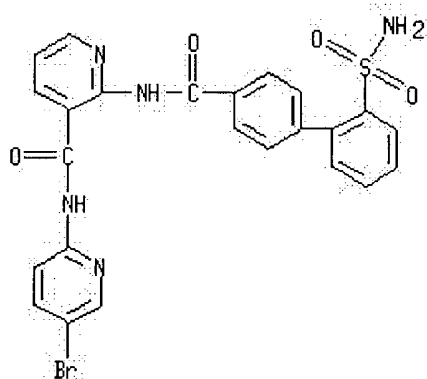
IT 330939-74-7P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of pyridyl benzamides and related compds. as Factor Xa inhibitors)

RN 330939-74-7 HCAPLUS

CN 3-Pyridinecarboxamide, 2-[[[2'-(aminosulfonyl)[1,1'-biphenyl]-4-yl]carbonyl]amino]-N-(5-bromo-2-pyridinyl)- (9CI) (CA INDEX NAME)



L12 ANSWER 43 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
References

ACCESSION NUMBER: 2001:896753 HCAPLUS  
DOCUMENT NUMBER: 136:118326  
TITLE: Molecular recognition of xanthine alkaloids: first synthetic receptors for theobromine and a series of new receptors for caffeine  
AUTHOR(S): Goswami, Shyamaprosad; Mahapatra, Ajit Kumar; Mukherjee, Reshmi  
CORPORATE SOURCE: Department of Chemistry, Bengal Engineering College (Deemed University), Howrah, 711103, India  
SOURCE: Journal of the Chemical Society, Perkin Transactions 1 (2001), (20), 2717-2726  
CODEN: JCSPCE; ISSN: 1472-7781  
PUBLISHER: Royal Society of Chemistry  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 136:118326  
GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Synthetic receptors [I, II (R = H, Ac) and III] are designed and synthesized for the first time for theobromine, a xanthine alkaloid used as a diuretic. The synthesis of the receptor III is achieved by Co(PPh<sub>3</sub>)<sub>3</sub>Cl-mediated homocoupling of 3-(ethoxycarbonyl)benzyl bromide under mild conditions. New caffeine receptors [IV and V (X = CH<sub>2</sub>, SO<sub>2</sub>)] are designed and synthesized. The binding results of theobromine and caffeine (both by NMR and UV studies) are reported.

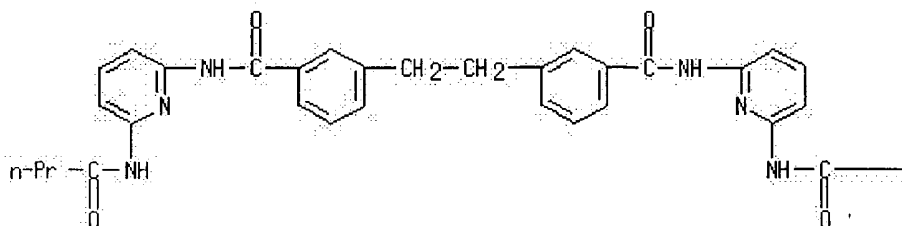
IT **390358-50-6P**

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)  
(mol. recognition of xanthine alkaloids by synthetic receptors specific for theobromine or caffeine)

RN 390358-50-6 HCAPLUS

CN Benzamide, 3,3'-(1,2-ethanediyl)bis[N-[6-[(1-oxobutyl)amino]-2-pyridinyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

-Pr-n

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 44 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
References

ACCESSION NUMBER: 2001:873334 HCAPLUS  
DOCUMENT NUMBER: 136:12632  
TITLE: New heterocyclic compound for electroluminescent device  
INVENTOR(S): Okada, Hisashi; Ise, Toshihiro  
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 52 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001335776	A2	20011204	JP 2000-218967	20000719
US 6461747	B1	20021008	US 2000-621740	20000721
US 2003091861	A1	20030515	US 2002-224377	20020821
US 6656612	B2	20031202		
US 2004062952	A1	20040401	US 2003-671406	20030926
PRIORITY APPLN. INFO.:			JP 1999-207957	A 19990722
			JP 2000-80734	A 20000322
			US 2000-621740	A3 20000721
			US 2002-224377	A3 20020821

OTHER SOURCE(S): MARPAT 136:12632

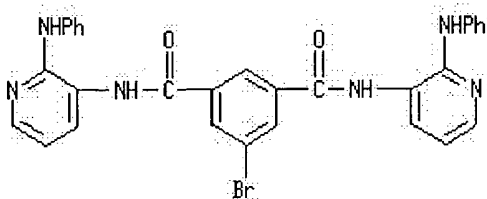
AB The invention relates to new heterocyclic compds., suited for use in making an electroluminescent device, represented by L-(A)<sub>m</sub> [A = heterocyclic group having ≥2 arom. hetero ring condensed; m = integer ≥ 2; L = bonding group].

IT 350025-83-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(in prepn. of new heterocyclic compd. for electroluminescent device)

RN 350025-83-1 HCAPLUS

CN 1,3-Benzenedicarboxamide, 5-bromo-N,N'-bis[2-(phenylamino)-3-pyridinyl]-  
(9CI) (CA INDEX NAME)



L12 ANSWER 45 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full  
Text

Citing  
References

ACCESSION NUMBER: 2001:845796 HCAPLUS  
DOCUMENT NUMBER: 136:79273  
TITLE: A quantitative structure-activity relationship study on some HIV-1 protease inhibitors using molecular connectivity index  
AUTHOR(S): Gayathri, P.; Pande, V.; Sivakumar, R.; Gupta, S. P.  
CORPORATE SOURCE: Department of Chemistry, Birla Institute of Technology and Science, Pilani, 333 031, India  
SOURCE: Bioorganic & Medicinal Chemistry (2001), 9(11), 3059-3063  
CODEN: BMECEP; ISSN: 0968-0896  
PUBLISHER: Elsevier Science Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB A quant. structure-activity relation (QSAR) study has been made on two different series of tetrahydropyrimidinones acting as HIV-1 protease inhibitors. A structural parameter, the first order valence mol. connectivity index ( $1\chi_v$ ), has been used to account for the variation in the activity. The protease inhibition activity as well as the antiviral potency of the compds. are significantly correlated with  $1\chi_v$  of P2/P2' substituents attached to the two nitrogens N1 and N3, suggesting that substituents contg. less electroneg. and more satd. atoms, meaning thereby the less polar or more hydrophobic substituents, will be more advantageous. Further, if P2 and P2' are dissimilar, the former is more effective than the latter. This difference is attributed to a conformational change in the enzyme that may be more favorable to P2 binding than to P2' binding.

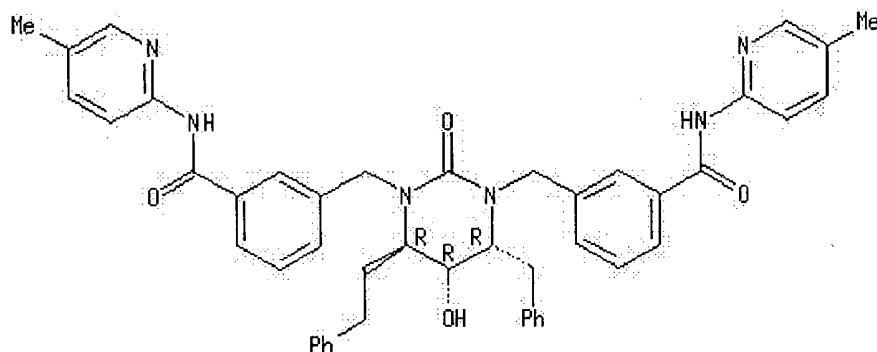
IT 219941-25-0

RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(QSAR study on HIV-1 protease inhibitors using mol. connectivity index)

RN 219941-25-0 HCAPLUS

CN Benamide, 3,3'-[[[(4R,5R,6R)-dihydro-5-hydroxy-2-oxo-4-(2-phenylethyl)-6-(phenylmethyl)-1,3(2H,4H)-pyrimidinediyl]bis(methylene)]bis[N-(5-methyl-2-pyridinyl)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

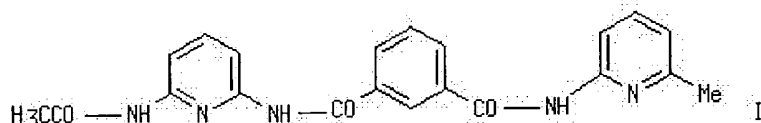


REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 46 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text ☐  
References ☐

ACCESSION NUMBER: 2001:779567 HCAPLUS  
DOCUMENT NUMBER: 136:151062  
TITLE: Unsymmetrical tris-amide receptors for efficient recognition of N-acetylglycine in chloroform  
AUTHOR(S): Goswami, Shyamaprosad; Mukherjee, Reshmi  
CORPORATE SOURCE: Department of Chemistry, Bengal Engineering College (Deemed University), Howrah, 711 103, India  
SOURCE: Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (2001), 40B(10), 960-964  
CODEN: IJSBDB; ISSN: 0376-4699  
PUBLISHER: National Institute of Science Communication  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 136:151062  
GI



AB A series of receptors have been designed and synthesized for recognition of sparingly sol. N-acetylglycine. Studies show that the receptor I is most efficient to bind N-acetylglycine. Binding was accomplished following a three-point hydrogen bonding strategy for carboxyl group with cooperative hydrogen bonding for acetamido group to bind guest substrate in its non-ionic form.

IT 394222-48-1P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of pyridine amide-benzene based synthetic receptors for recognition of N-acetylglycine in chloroform)

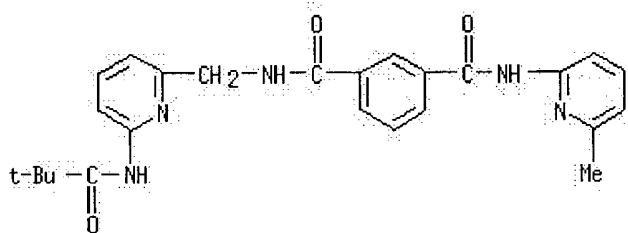
RN 394222-48-1 HCAPLUS

CN Glycine, N-acetyl-, compd. with N-[[6-[(2,2-dimethyl-1-oxopropyl)amino]-2-pyridinyl]methyl]-N'-(6-methyl-2-pyridinyl)-1,3-benzenedicarboxamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 394222-46-9

CMF C25 H27 N5 O3



CM 2

CRN 543-24-8

CMF C4 H7 N O3

AcNH-CH<sub>2</sub>-CO<sub>2</sub>H

REFERENCE COUNT:

19

THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 47 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text	References
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ACCESSION NUMBER:

2001:762969 HCAPLUS

DOCUMENT NUMBER:

135:303779

TITLE:

Preparation of (hetero)arylcarboxamides as inhibitors of microsomal triglyceride transfer protein (MTP) and of apolipoprotein B (apo B) secretion.

INVENTOR(S):

Damon, Robert E., II

PATENT ASSIGNEE(S):

Novartis A.-G., Switz.; Novartis-Erfindungen Verwaltungsgesellschaft m.b.H.

SOURCE:

PCT Int. Appl., 77 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001077077	A1	20011018	WO 2001-EP4052	20010409
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.:

US 2000-545620

A 20000410

OTHER SOURCE(S):

MARPAT 135:303779

AB R1LCONHL1VAWZ (R1 = aryl, cycloalkyl, heterocyclyl, aralkoxy, aralkylthio; L, L1 = arylene, heteroarylene; V, W = O, S, SO, SO<sub>2</sub>, NR, bond; R = H, alkyl, aralkyl; Z = aryl, heteroaryl, heteroarylalkyl, etc.; A = alkylene; with provisos), were prepd. Thus, 6-methyl-4'-trifluoromethyl-1,1'-biphenyl-2-carboxylic acid (prepn. given), 1-hydroxy-7-azabenzotriazole,

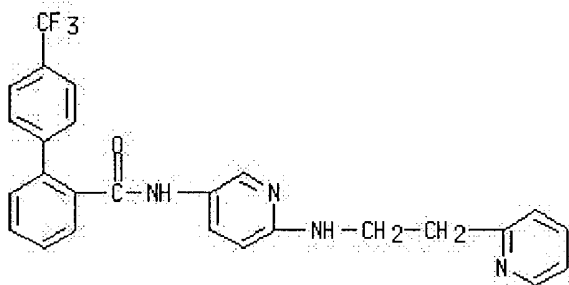
and EDCI were stirred 1 h in DMF; N1-[2-(2-pyridinyl)ethyl]-1,4-benzenediamine (prepn. given) in DMF was added followed by stirring for 16 h to give 6-methyl-N-[4-[[2-(2-pyridinyl)ethyl]amino]phenyl]-4'-(trifluoromethyl)-[1,1'-biphenyl]-2-carboxamide. The latter at 5 mg/kg orally in rats lowered both plasma triglycerides and cholesterol.

IT 366488-08-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of (hetero)arylcarboxamides as inhibitors of microsomal triglyceride transfer protein (MTP) and of apolipoprotein B (apo B) secretion)

RN 366488-08-6 HCAPLUS

CN [1,1'-Biphenyl]-2-carboxamide, N-[6-[[2-(2-pyridinyl)ethyl]amino]-3-pyridinyl]-4'-(trifluoromethyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 48 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN



ACCESSION NUMBER: 2001:693264 HCAPLUS  
DOCUMENT NUMBER: 135:257269  
TITLE: Preparation of N-heterocyclyl amide compounds as 5-HT antagonists  
INVENTOR(S): Yamada, Akira; Tomishima, Masaki; Hayashida, Hisashi; Imanishi, Masashi; Spears, Glen W.; Ito, Kiyotaka; Takahashi, Fumie; Miyake, Hiroshi  
PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd., Japan  
SOURCE: PCT Int. Appl., 239 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>WO 2001068585</u>	A1	20010920	<u>WO 2001-JP1993</u>	20010313
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, VZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
<u>AU 2001041128</u>	A5	20010924	<u>AU 2001-41128</u>	20010313



EP 1264820 A1 20021211 EP 2001-912338 20010313  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
 US 2004087798 A1 20040506 US 2002-221554 20021227  
 PRIORITY APPLN. INFO.: JP 2000-70127 A 20000314  
 JP 2000-305947 A 20001005  
 WO 2001-JP1993 W 20010313

OTHER SOURCE(S): CASREACT 135:257269; MARPAT 135:257269

AB Amides compds. represented by the general formula R1-A-X-NHCO-Y-R2  
 [wherein R1 is an optionally substituted heterocyclic group or optionally  
 substituted phenyl; R2 is optionally substituted fused Ph, optionally  
 substituted Ph, or optionally substituted thienyl; A is a group  
 represented by the formula -(CH2)t-(O)m- or -(CR3R4)pNR5(CO)n- (wherein R3  
 and R4 each is hydrogen or R3 and R4 in combination form imino; R5 is  
 hydrogen or lower alkyl; t is 0, 1, or 2; and p, m, and n each is 0 or 1);  
 X is optionally substituted phenylene or an optionally substituted,  
 divalent, nitrogenous heterocyclic group; and Y is a bond, lower alkylene,  
 or lower alkenylene] and salts thereof are prepd. These amides include  
 phenylacetamide, cinnamides, 1H-indole-7-carboxamides,  
 3-(2-pyridyl)-2-propenamides, 5-phenyl-2-thiophenecarboxamides,  
 9H-carbazolecarboxamides, 3-phenyl-2-propenamides, 9H-fluorene-1-  
 carboxamides, 2,3-dihydrobenz[b]oxepine-4-carboxamides,  
 1H-benzo[b]thiepin-4-carboxamides, and 3-(1H-indol-3-yl)-2-propenamides.  
 They are antagonists of 5-hydroxytryptamine (5-HT), in particular 5-HT2c,  
 and are useful for the treatment of 5-HT-mediated diseases such as (1)  
 central nervous system disorders in including anxiety, depression,  
 obsessive-compulsive neurosis, migraine headache, anorexia, Alzheimer's  
 disease, sleep disorder, over-eating, and panic, (2) withdrawal symptom  
 caused by cocaine, ethanol, nicotine, and benzodiazepine, (3)  
 schizophrenia, (4) spinal cord injury, and /or (5) head injury such as  
 hydrocephalus. Thus, SOCl2 was added to a soln. of (E)-4-phenyl-3-  
 butenoic acid in benzene, heated under reflux for 1 h, and cooled,  
 followed by adding 3-(imidazol-1-yl)aniline and Et3N, and the resulting  
 mixt. was stirred at room temp. for 1 h to give (3E)-N-[3-(imidazol-1-  
 yl)phenyl]-4-phenyl-3-butenamide (I). I in vitro inhibited by 82% the  
 binding of [3H]mesulergine to 5-HT2c receptor which was prepd. from rat  
 frontal lobe cortex.

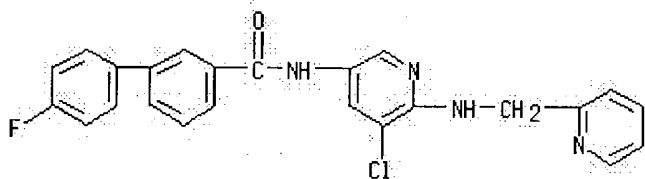
IT 361551-35-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
 study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);  
 BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of N-heterocyclyl amide compds. as 5-HT antagonists for  
 treatment of 5-HT-mediated diseases such as central nervous system  
 disorders, drug withdrawal symptom, schizophrenia, spinal code injury,  
 and head injury)

RN 361551-35-1 HCAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, N-[5-chloro-6-[(2-pyridinylmethyl)amino]-3-  
 pyridinyl]-4'-fluoro- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

32

THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 49 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN



ACCESSION NUMBER: 2001:661392 HCAPLUS  
 DOCUMENT NUMBER: 135:226888  
 TITLE: Preparation of pyridyl benzamides and related compounds as Factor Xa inhibitors.  
 INVENTOR(S): Zhu, Bing-yan; Zhang, Penglie; Wang, Lingyan; Huang, Wenrong; Goldman, Erick; Li, Wenhao; Zuckett, Jingmei; Song, Yonghong; Scarborough, Robert  
 PATENT ASSIGNEE(S): Cor Therapeutics, Inc., USA  
 SOURCE: PCT Int. Appl., 322 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 6  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001064643	A2	20010907	WO 2001-US6255	20010228
WO 2001064643	A3	20020404		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG EP 1259485 A2 20021127 EP 2001-918257 20010228 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.:  
 US 2000-185746P P 20000229  
 US 2000-663420 A 20000915  
 WO 2001-US6255 W 20010228

OTHER SOURCE(S): MARPAT 135:226888

AB AQDEGJX [A = alkyl, cycloalkyl, NR1R2, NR1R2C(:NR3), (substituted) Ph, naphthyl, heterocyclyl, etc.; R1-R3 = H, OR5, NR5R6, alkyl, alkenyl, etc.; R1R2 or R2R3 = atoms to form (substituted) cycloalkyl, heterocyclyl; R5, R6 = H, alkyl, alkenyl, alkynyl, cycloalkyl, (substituted) alkylphenyl, alkylphenyl; R5R6 = atoms to form a 3-8 membered (substituted) ring; Q = bond, CH2, CO, O, S, SO, SO2, NR7, SO2NR7, etc.; R7 = H, alkyl, alkenyl, alkynyl, cycloalkyl, alkylcycloalkyl, (substituted) alkylphenyl, alkylphenyl; D = bond, (substituted) Ph, naphthyl, mono- or bicyclic heterocyclyl; E = bond, alkyl, O, S, SO, SO2, alkylcarbonyl, etc.; G = (substituted) alkenyl, cycloalkenyl, phenylene, 3-8 membered (fused) (arom.) heterocyclyl; J = bond, NR9CO, O, S, SO, SO2, CH2, NR9SO2, etc.; X = (substituted) Ph, naphthyl, (fused) heteroaryl], were prepd. as antithrombotics (no data). Thus, N-(5-bromo-2-pyridinyl)-2-aminophenylcarboxamide (prepn. given), 4-cyanobenzoyl chloride, and pyridine were stirred overnight in CH2Cl2 to give 70% N-(5-bromo-2-pyridinyl)-[2-(4-cyanophenylcarbonyl)amino]phenylcarboxamide. The latter in MeOH at 0° was satd. with HCl and stirred overnight followed by solvent evapn. The residue was refluxed 2 h with NH4OAc in MeOH to give 70% N-(5-bromo-2-pyridinyl)-[2-(4-amidinophenylcarbonyl)amino]phenylcarboxamide.

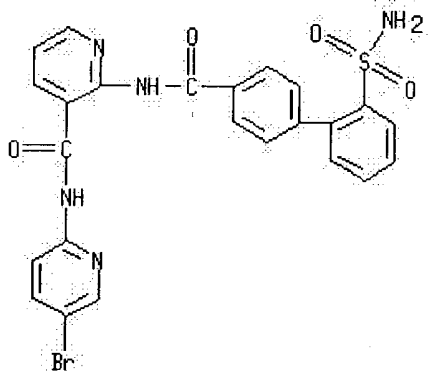
IT 330939-74-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of pyridyl benzamides and related compds. as Factor Xa inhibitors)

RN 330939-74-7 HCAPLUS

CN 3-Pyridinecarboxamide, 2-[[[2'-(aminosulfonyl)[1,1'-biphenyl]-4-yl]carbonyl]amino]-N-(5-bromo-2-pyridinyl)- (9CI) (CA INDEX NAME)



L12 ANSWER 50 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full  
Text

Chemical  
References

ACCESSION NUMBER: 2001:661391 HCAPLUS  
DOCUMENT NUMBER: 135:210946  
TITLE: Preparation of pyridylamides as Factor Xa inhibitors.  
INVENTOR(S): Zhu, Bing-yan; Zhang, Penglie; Wang, Lingyan; Huang, Wenrong; Goldman, Erick; Li, Wenhao; Zuckett, Jingmei; Song, Yonghong; Scarborough, Robert  
PATENT ASSIGNEE(S): Cor Therapeutics, Inc., USA  
SOURCE: PCT Int. Appl., 306 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 6  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001064642	A2	20010907	WO 2001-US6247	20010228
WO 2001064642	A3	20020502		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:  
US 2000-185746P P 20000229  
US 2000-663420 A 20000915

OTHER SOURCE(S): MARPAT 135:210946

AB AQDEGJX [A = alkyl, cycloalkyl, NR1R2, NR1R1C(:NR3), (substituted) Ph, naphthyl, mono- or bicyclic heterocyclyl, etc.; R1-R3 = H, alkyl, alkenyl, alkynyl, cycloalkyl, (alkyl)aryl, (alkyl)heteroaryl, etc.; R1R2 or R2R3 = atoms to form a 3-8 membered (substituted) (heterocyclic) ring; Q = bond, CH2, CO, O, NR7, etc.; R7 = H, alkyl, (alkyl)aryl, (alkyl)heteroaryl,

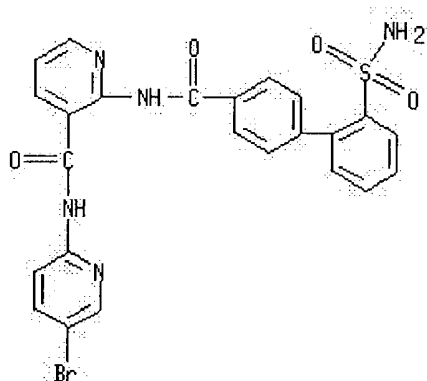
etc.; D = bond, (substituted) Ph, naphthyl, mono- or bicyclic heterocyclyl; E = bond, alkyl, S, SO, SO<sub>2</sub>, alkoxy, etc.; G = (substituted) alkenyl, cycloalkenyl, phenylene, heterocyclyl, fused cyclic system; J = bond, NR<sub>9</sub>CO, O, S, SO, SO<sub>2</sub>, SO<sub>2</sub>NR<sub>9</sub>, CH<sub>2</sub>, NR<sub>9</sub>, etc.; R<sub>9</sub> = H, alkyl, (alkyl)aryl, etc.; X = (substituted) Ph, naphthyl, heteroaryl, fused bicycyl], were prepd. as antithrombotics (no data). Thus, N-(5-bromo-2-pyridinyl) 2-aminophenylcarboxamide (prepn. given), 4-[(2-tert-butylaminosulfonyl)phenyl]benzoyl chloride, and pyridine were stirred overnight in CH<sub>2</sub>Cl<sub>2</sub> to give 85% N-(5-bromo-2-pyridinyl)-[2-4-[(2-aminosulfonyl)phenyl]phenylcarbonylamino]phenylcarboxamide.

## IT 330939-74-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of pyridylamides as Factor Xa inhibitors)

RN 330939-74-7 HCAPLUS

CN 3-Pyridinecarboxamide, 2-[[[2'-(aminosulfonyl)[1,1'-biphenyl]-4-yl]carbonyl]amino]-N-(5-bromo-2-pyridinyl)- (9CI) (CA INDEX NAME)



L12 ANSWER 51 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN



ACCESSION NUMBER: 2001:606591 HCAPLUS  
DOCUMENT NUMBER: 136:369580  
TITLE: Design and synthesis of tweezers-like artificial receptor of aromatic heterocycles based on multiple hydrogen-bonding sites  
AUTHOR(S): Zhao, Zhiming; Mu, Qiming; Hu, Rong; Yang, Zuxing; Chen, Shuhau  
CORPORATE SOURCE: Faculty of Chemistry, Sichuan University, Chengdu, 610064, Peop. Rep. China  
SOURCE: Sichuan Daxue Xuebao, Ziran Kexueban (2001), 38(3), 402-406  
CODEN: SCTHAO; ISSN: 0490-6756  
PUBLISHER: Sichuan Daxue Xuebao Bianjibu  
DOCUMENT TYPE: Journal  
LANGUAGE: Chinese  
OTHER SOURCE(S): CASREACT 136:369580  
AB Eight mol. tweezers 2,6-dibenzamidopyridine, 2,6-di(4-ethoxybenzamido)pyridine, 2,2'-di(pyridine-2-aminocarbonyl)diphenyl, 1,3-di(phenoxyacetamido)pyridine, 1,2-di(phenoxyacetamido)pyridine, 1,3-di(6-benzamidopyridine-2-aminocarbonyl)benzene, 1,3-di[6-(4-nitrobenzamido)pyridine-2-aminocarbonyl]benzene, and 1,3-di(6-benzamidopyridine-2-aminocarbonyl)pyridine were designed and synthesized by acylation. The structures of these receptors were identified by MS,

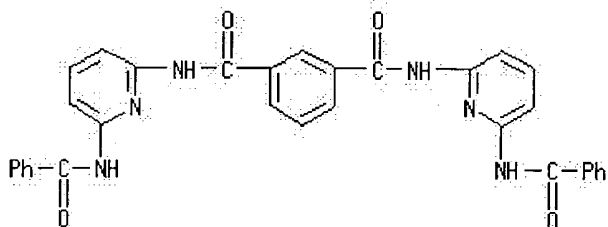
<sup>1</sup>HNMR, and IR spectra.

IT **425377-08-8P**

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(synthesis of tweezers-like artificial receptor of arom. heterocycles  
based on multiple hydrogen-bonding sites)

RN **425377-08-8** HCAPLUS

CN **1,3-Benzenedicarboxamide, N,N'-bis[6-(benzoylamino)-2-pyridinyl]-** (9CI)  
(CA INDEX NAME)



L12 ANSWER 52 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full  
Text

References

ACCESSION NUMBER: 2001:564991 HCAPLUS  
DOCUMENT NUMBER: 135:137828  
TITLE: Functional monomers for molecular recognition and catalysis  
INVENTOR(S): Sellergren, Boerje; Hall, Andrew; Chenon, Karine; Karmalkar, Rohini  
PATENT ASSIGNEE(S): Mip Technologies AB, Swed.  
SOURCE: PCT Int. Appl., 59 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001055095	A1	20010802	WO 2001-SE137	20010125
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1250315	A1	20021023	EP 2001-902904	20010125
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003520843	T2	20030708	JP 2001-555037	20010125
US 2003166798	A1	20030904	US 2002-169799	20021125
PRIORITY APPLN. INFO.:				
			SE 2000-295	A 20000128
			SE 2000-389	A 20000128
			WO 2001-SE137	W 20010125

OTHER SOURCE(S): MARPAT 135:137828

AB The present invention refers to new classes of polymerizable monomers, to molecularly imprinted polymers obtainable by polymn. of at least one of

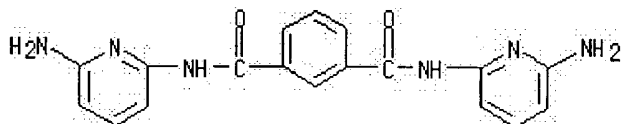
the monomers and a crosslinking monomer in the presence of a template mol. The obtained polymers may be used for sepn. of enantiomers, diastereomers of the template mol., and also for sepn. of the template mol. or template mol. analogs from structurally related compds. The monomers can be formamidines, chiral amidines, vinyl- methacryloyl or acryloyl-based alkyl or arylidiamines, receptor analog monomers, etc.

IT **112817-57-9P**

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(functional monomers for mol. recognition and catalysis)

RN 112817-57-9 HCAPLUS

CN 1,3-Benzenedicarboxamide, N,N'-bis(6-amino-2-pyridinyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 53 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
Citing References

ACCESSION NUMBER: 2001:545674 HCAPLUS  
DOCUMENT NUMBER: 135:137516  
TITLE: Synthesis of heteroarylbenzamides and analogs used for inhibiting protein kinases  
INVENTOR(S): Bender, Steven Lee; Bhumralkar, Dilip; Collins, Michael Raymond; Cripps, Stephan James; Deal, Judith Gail; Nambu, Mitchell David; Palmer, Cynthia Louise; Peng, Zhengwei; Varney, Michael David; Jia, Lei  
PATENT ASSIGNEE(S): Agouron Pharmaceuticals, Inc., USA  
SOURCE: PCT Int. Appl., 237 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>WO 2001053274</u>	A1	20010726	<u>WO 2001-US1723</u>	20010119
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
<u>US 2002103203</u>	A1	20020801	<u>US 2001-764306</u>	20010119
<u>US 6635641</u>	B2	20031021		
<u>EP 1252146</u>	A1	20021030	<u>EP 2001-906592</u>	20010119
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
<u>BR 2001008025</u>	A	20021105	<u>BR 2001-8025</u>	20010119

JP 2003529558	T2	20031007	JP 2001-553276	20010119
US 2004092747	A1	20040513	US 2003-621979	20030717
PRIORITY APPLN. INFO.:			US 2000-177059P	P 20000121
			US 2001-764306	A3 20010119
			WO 2001-US1723	W 20010119

OTHER SOURCE(S): MARPAT 135:137516

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\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Title compds. I [Z = CH, NH; Q = moiety such that ring A is (un)substituted mono- or bicyclic heteroaryl which has at least 2 carbon atoms in the heteroaryl ring system; X = CH<sub>2</sub>, O, S, NH; Y = CH<sub>2</sub>, O, S, provided at least one of X and Y = CH<sub>2</sub> or X and Y form a cyclopropyl ring; R<sub>2</sub>-3 = H, Me, halo, CF<sub>3</sub>, CN; R<sub>4</sub> = CONHR<sub>5</sub>, NHCOR<sub>6</sub>; where R<sub>5</sub> = (un)substituted aryl, heteroaryl, cycloalkyl, etc.; R<sub>6</sub> = (un)substituted aryl, heteroaryl, cycloalkyl, etc] are prepd. Examples include synthetic procedures for over 150 compds., 11 biol. assays and 3 sample formulations. For instance, 3-mercaptobenzoic acid was treated with  $\alpha$ -chloro-N-methoxy-N-methylacetamide followed by carbodiimide coupling to 2-methyl-6-aminoquinoline to give II. II was converted to a  $\beta$ -thiono-ketone with thioacetanilide/n-BuLi followed by treatment with hydrazine to give pyrazole III. III gave 85% inhibition of an lck protein tyrosine kinase at 5  $\mu$ M and had K<sub>i</sub> = 2.21 nM for VEGF-R2A50. Treatment of cancer as well as other disease states assocd. with unwanted angiogenesis and/or cellular proliferation, such as diabetic retinopathy, neovascular glaucoma, rheumatoid arthritis, and psoriasis are claimed uses of the invention.

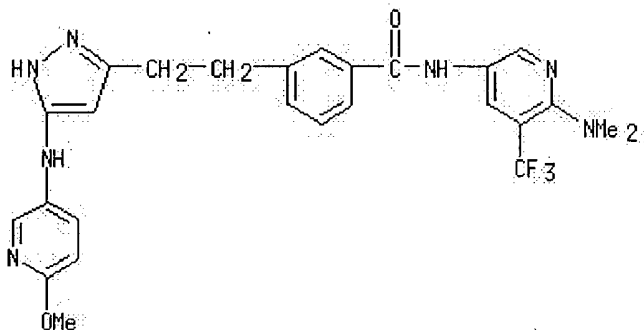
IT **351320-27-9P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(synthesis of heteroarylbenzamides used for inhibiting protein kinases)

RN 351320-27-9 HCAPLUS

CN Benzamide, N-[6-(dimethylamino)-5-(trifluoromethyl)-3-pyridinyl]-3-[2-[5-[(6-methoxy-3-pyridinyl)amino]-1H-pyrazol-3-yl]ethyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

7

THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 54 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text	Cited References
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h

eb c

g cg b

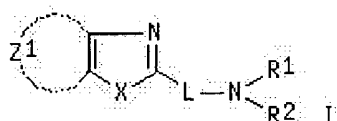
cg

eb

ACCESSION NUMBER: 2001:517740 HCAPLUS  
 DOCUMENT NUMBER: 135:114270  
 TITLE: Novel condensed hetero ring compound and electroluminescent material  
 INVENTOR(S): Ise, Toshihiro; Okada, Hisashi  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 36 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001192653	A2	20010717	JP 2000-89632	20000328
US 6620529	B1	20030916	US 2000-697157	20001027
US 2004146745	A1	20040729	US 2003-625539	20030724
PRIORITY APPLN. INFO.:			JP 1999-305733	A 19991027
			JP 2000-62472	A 20000307
			JP 2000-89632	A 20000328
			US 2000-697157	A3 20001027

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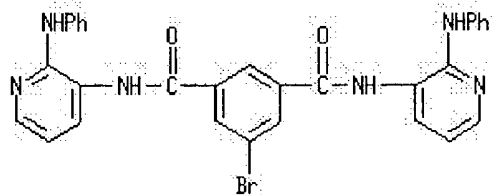
AB The invention refers to a novel condensed hetero ring compd. I [R1,2 = H, aliph. hydrocarbon, aryl or hetero ring; Z1 = atoms need to construct a heterocyclic; L = bridging functional group; X = O, S, Se, Trace element or N-R; R = H, aliph. hydrocarbon, aryl or heterocyclic].

IT 350025-83-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (novel condensed hetero ring compd. and electroluminescent material)

RN 350025-83-1 HCAPLUS

CN 1,3-Benzenedicarboxamide, 5-bromo-N,N'-bis[2-(phenylamino)-3-pyridinyl]-  
 (9CI) (CA INDEX NAME)



L12 ANSWER 55 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
 Citing References

ACCESSION NUMBER: 2001:361910 HCAPLUS  
 DOCUMENT NUMBER: 135:122741  
 TITLE: Synthesis based on affinity separation (SAS): separation of products having barbituric acid tag from untagged compounds by using hydrogen bond interaction



AUTHOR(S): Zhang, San-Qi; Fukase, Koichi; Izumi, Minoru; Fukase, Yoshiyuki; Kusumoto, Shoichi  
 CORPORATE SOURCE: Department of Chemistry, Graduate School of Science, Osaka University, Osaka, 560-0043, Japan  
 SOURCE: Synlett (2001), (5), 590-596  
 CODEN: SYNLES; ISSN: 0936-5214  
 PUBLISHER: Georg Thieme Verlag  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 135:122741

AB A new method is described for affinity purifn. of synthetic compds. based on mol. recognition between bis(2,6-diaminopyridine)amide of isophthalic acid and a barbituric acid deriv. The desired compds. possessing the barbituric acid deriv. as a tag were readily isolated from the reaction mixt. by the following procedure. After each reaction cycle, the reaction mixt. was applied to the polystyrene column possessing bis(2,6-diaminopyridine)amide of isophthalic acid as an artificial receptor. The compd. possessing the barbituric acid tag was selectively adsorbed on the column, whereas other impurities without the tag such as excess reagents and byproducts were washed off. Subsequent desorption with CH<sub>2</sub>Cl<sub>2</sub>-MeOH (1:1) afforded the desired compd. with high purity. This new strategy was applied to the synthesis of a heterocycle, peptides, and oligosaccharides.

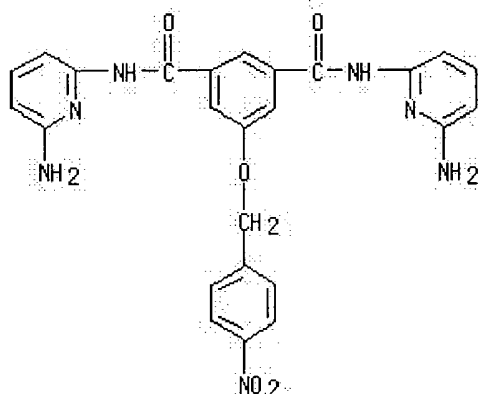
IT 350671-22-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of peptides or oligosaccharides using barbituric acid tags for affinity chromatog. sepn. of products)

RN 350671-22-6 HCAPLUS

CN 1,3-Benzenedicarboxamide, N,N'-bis(6-amino-2-pyridinyl)-5-[(4-nitrophenyl)methoxy]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

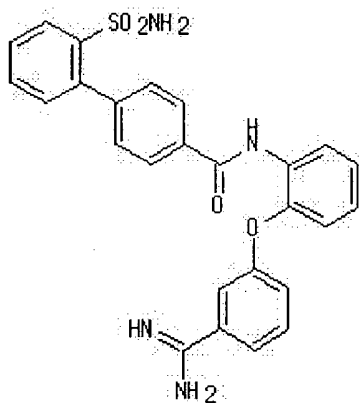
L12 ANSWER 56 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text ☐ Cited References ☐

ACCESSION NUMBER: 2001:208239 HCAPLUS  
 DOCUMENT NUMBER: 134:252153  
 TITLE: Preparation of benzamides as inhibitors of factor Xa  
 INVENTOR(S): Zhu, Bing-yan; Zhang, Penglie; Wang, Lingyan; Huang, Wenrong; Goldman, Eric; Li, Wenhao; Zuckett, Jingmei; Song, Yonghong; Scarborough, Robert  
 PATENT ASSIGNEE(S): Cor Therapeutics, Inc., USA

SOURCE: PCT Int. Appl., 224 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 6  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001019788	A2	20010322	WO 2000-US25196	20000915
WO 2001019788	A3	20010809		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2000074867	A5	20010417	AU 2000-74867	20000915
EP 1216228	A2	20020626	EP 2000-963452	20000915
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
BR 2000014076	A	20021015	BR 2000-14076	20000915
JP 2003509406	T2	20030311	JP 2001-523368	20000915
NO 2002001229	A	20020521	NO 2002-1229	20020312
PRIORITY APPLN. INFO.:				
			US 1999-154332P	P 19990917
			US 2000-185746P	P 20000229
			WO 2000-US25196	W 20000915
OTHER SOURCE(S): MARPAT 134:252153				
GI				



AB The title compds. AQDEGJX [A = alkyl, cycloalkyl, (un)substituted Ph, etc.; Q = a direct link, CH<sub>2</sub>, CO, etc.; D = a direct link, (un)substituted Ph, naphthyl, etc.; E = a direct link, O, alkyl, etc.; G = alkenylene, cycloalkenylene, phenylene, etc.; J = a direct link, O, S, etc.; X = a (un)substituted Ph, naphthyl, heteroaryl, etc.] having activity against mammalian factor Xa (no data), and useful in vitro or in vivo for preventing or treating coagulation disorders, were prepd. E.g., a 4-step synthesis of the benzamide I was given.

IT 330939-74-7P

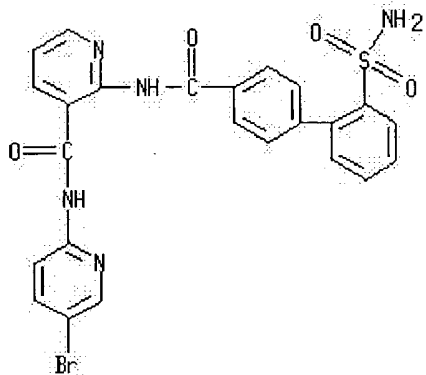
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of benzamides as inhibitors of factor Xa)

RN 330939-74-7 HCAPLUS

CN 3-Pyridinecarboxamide, 2-[[[2'-(aminosulfonyl)[1,1'-biphenyl]-4-yl]carbonyl]amino]-N-(5-bromo-2-pyridinyl)- (9CI) (CA INDEX NAME)



L12 ANSWER 57 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text	Cited References
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ACCESSION NUMBER: 2001:139754 HCAPLUS  
 DOCUMENT NUMBER: 134:340873  
 TITLE: Effect of an Internal Anthranilamide Turn Unit on the Structure and Conformational Stability of Helically Biased Intramolecularly Hydrogen-Bonded Dendrons  
 AUTHOR(S): Huang, Baohua; Parquette, Jon R.  
 CORPORATE SOURCE: Department of Chemistry, The Ohio State University, Columbus, OH, 43210, USA  
 SOURCE: Journal of the American Chemical Society (2001), 123(11), 2689-2690  
 CODEN: JACSAT; ISSN: 0002-7863  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB We have described dendrons that exhibit a helical secondary structure that occurs over three generational levels. The preliminary evidence described in this paper suggests that mol. packing plays an important role in stabilizing secondary structure in dendrimeric systems.

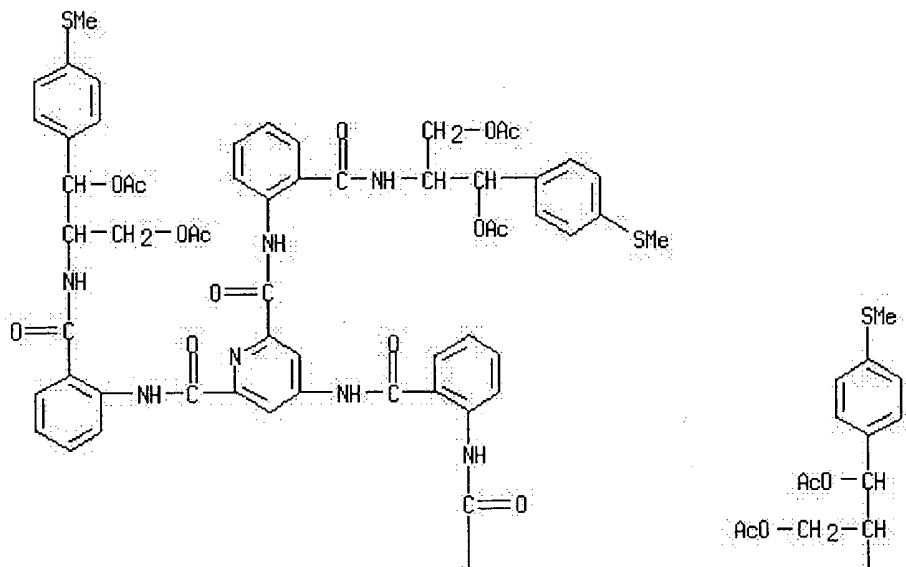
IT 337955-55-2

RL: PRP (Properties)  
 (effect of internal anthranilamide turn unit on structure and conformational stability of helically biased intramolecularly hydrogen-bonded dendrons)

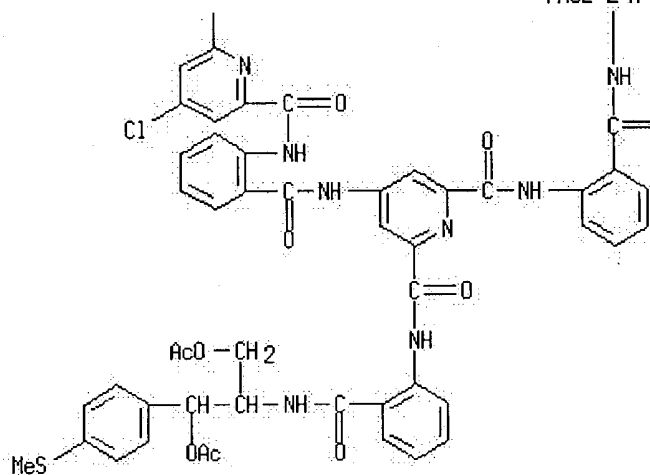
RN 337955-55-2 HCAPLUS

CN 2,6-Pyridinedicarboxamide, N,N'-bis[2-[[[2,6-bis[[[2-[[[2-(acetyloxy)-1-[(acetyloxy)methyl]-2-[4-(methylthio)phenyl]ethyl]amino]carbonyl]phenyl]amino]carbonyl]-4-pyridinyl]amino]carbonyl]phenyl]-4-chloro- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



PAGE 2-B

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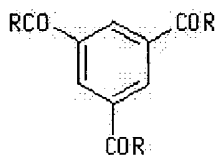
REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 58 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

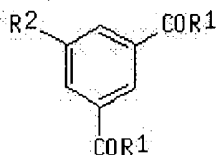
Full Text Citations References

ACCESSION NUMBER: 2001:120738 HCAPLUS  
 DOCUMENT NUMBER: 134:326418  
 TITLE: Molecular recognition of carbohydrates by artificial receptors: systematic studies towards recognition motifs for carbohydrates  
 AUTHOR(S): Mazik, Monika; Sicking, Willi  
 CORPORATE SOURCE: Institut für Organische Chemie der Universität Essen,

SOURCE: Essen, 45117, Germany  
 Chemistry--A European Journal (2001), 7(3), 664-670  
 CODEN: CEUJED; ISSN: 0947-6539  
 PUBLISHER: Wiley-VCH Verlag GmbH  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



I



II

AB Several acyclic artificial receptors, benzene derivs. I (R = 7-methyl-1,8-naphthyridin-2-ylamino, 6-methyl-2-pyridinyloxy, 3,5-dimethylphenylamino) and II (R1 = 7-methyl-1,8-naphthyridin-2-ylamino, R2 = H; R1 = 6-methyl-2-pyridinylamino, R2 = 6,7-dimethoxy-2-oxo-2H-chromen-4-ylmethoxy), were synthesized as artificial receptors for the binding of an octyl  $\beta$ -D-glucopyranoside mol. These artificial receptors having uncharged hydrogen-bonding sites were used in a systematic study towards the evaluation of recognition motifs for carbohydrates. A novel effective, acyclic hydrogen-bonding receptor possessing naphthyridine - amide moieties as heterocyclic recognition units has been developed.

IT 264626-71-3

RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)

(formation of a 1:1 complex of a heterocyclic artificial receptor with a glucoside mol.)

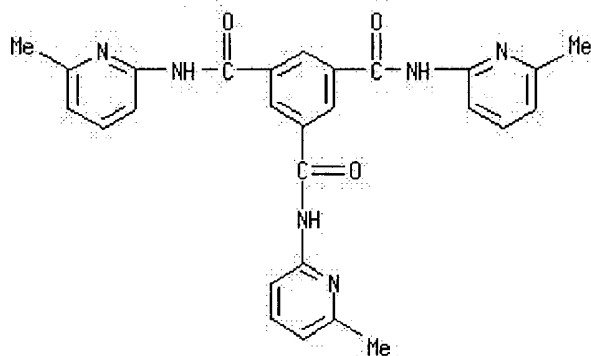
RN 264626-71-3 HCAPLUS

CN  $\beta$ -D-Glucopyranoside, octyl, compd. with N,N',N''-tris(6-methyl-2-pyridinyl)-1,3,5-benzenetricarboxamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 164174-81-6

CMF C27 H24 N6 O3

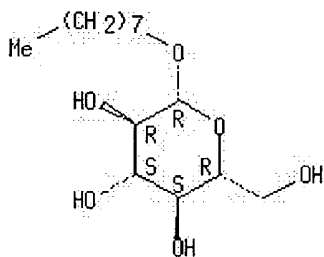


CM 2

CRN 29836-26-8

CMF C14 H28 O6

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 59 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

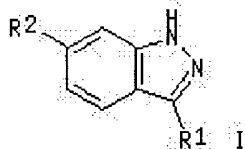
Full Text  
Citing References

ACCESSION NUMBER: 2001:31473 HCAPLUS  
DOCUMENT NUMBER: 134:100864  
TITLE: Indazole compounds and pharmaceutical compositions for inhibiting protein kinases, and methods for their use  
INVENTOR(S): Kania, Robert Steven; Bender, Steven Lee; Borchardt, Allen J.; Braganza, John F.; Cripps, Stephan James; Hua, Ye; Johnson, Michael David; Johnson, Theodore Otto, Jr.; Luu, Hiep The; Palmer, Cynthia Louise; Reich, Siegfried Heinz; Tempczyk-russell, Anna Maria; Teng, Min; Thomas, Christine; Varney, Michael David; Wallace, Michael Brennan  
PATENT ASSIGNEE(S): Agouron Pharmaceuticals, Inc., USA  
SOURCE: PCT Int. Appl., 439 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001002369	A2	20010111	WO 2000-US18263	20000630
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
BR 2000012352	A	20020514	BR 2000-12352	20000630
EP 1218348	A2	20020703	EP 2000-943375	20000630
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003503481	T2	20030128	JP 2001-507809	20000630
NZ 516676	A	20030926	NZ 2000-516676	20000630
US 6531491	B1	20030311	US 2001-983786	20011025
US 6534524	B1	20030318	US 2001-983783	20011025
NO 2001005797	A	20020301	NO 2001-5797	20011128
ZA 2001010061	A	20030206	ZA 2001-10061	20011206

BG 106380	A	20020930	BG 2002-106380	20020201
US 2004171634	A1	20040902	US 2003-326755	20030213
PRIORITY APPLN. INFO.:			US 1999-142130P	P 19990702
			US 2000-609335	B3 20000630
			WO 2000-US18263	W 20000630
			US 2001-983786	A3 20011025

OTHER SOURCE(S):                    MARPAT 134:100864  
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AB Indazole compds. I [R1 = substituted or unsubstituted aryl or heteroaryl, R3CH:CH, R3N:CH; R2 = substituted or unsubstituted aryl, heteroaryl, Y-X; R3 = substituted or unsubstituted alkyl alkenyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl; Y = O, S, C(:CH2), CO, SO, SO2, alkylidene, NH, N(C1-C8 alkyl); X = substituted or unsubstituted aryl, heteroaryl, NH(alkyl), NH(cycloalkyl), NH(heterocycloalkyl), NH(aryl), NH(heteroaryl), NH(alkoxy), NH(dialkylamide)] and their pharmaceutically acceptable prodrugs, active metabolites, and salts are disclosed. The compds. modulate and/or inhibit the activity of certain protein kinases. In particular, I and pharmaceutical compns. contg. them are capable of mediating tyrosine kinase signal transduction, and thereby modulate and/or inhibit unwanted cell proliferation. The invention is also directed to the therapeutic or prophylactic use of pharmaceutical compns. contg. such compds., and to methods of treating cancer and other disease states assocd. with unwanted angiogenesis and/or cellular proliferation, such as diabetic retinopathy, neovascular glaucoma, rheumatoid arthritis, and psoriasis, by administering effective amts. of such compds. E.g., I [R1 = (E)-3,4-(MeO)2C6H3CH:CH; R2 = 4-HO-3-MeOC6H3] (II) was prepd. from 6-aminoindazole by diazotization and substitution with iodide, protection of the indazole nitrogen with 2,4,6-Me3C6H2SO2Cl, coupling of the regioisomeric mixt. with 4-(methoxymethoxy)-3-methoxybenzeneboronic acid in the presence of dichlorobis(triphenylphosphine)palladium, and deprotection of the indazole moiety and iodination at the 3-position of the indazole. Treatment of the 3-indazolyl iodide with sec-butyllithium, phenyllithium, and DMF, regioselective protection of the indazole with 2,4,6-Me3C6H2SO2Cl, olefination with 3,4-dimethoxybenzyltriphenylphosphonium bromide, deprotection of the indazole, deprotection of the methoxymethyl group, and equilibration of the double bond with iodine gave II. Biol. data on protein kinase inhibition, cell proliferation inhibition, neovascularization inhibition, and i.p. and oral bioavailability, are given.

IT 319468-88-7P

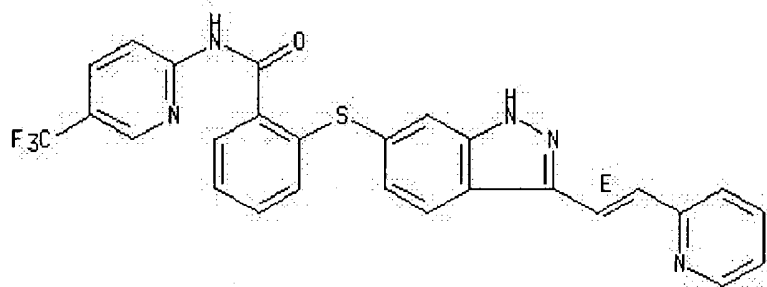
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of combinatorial libraries of aryl-substituted indazole derivs. as modulators and inhibitors of protein kinases in the treatment of tumor growth, cellular proliferation, and angiogenesis)

RN 319468-88-7 HCAPLUS

CN Benzamide, 2-[[3-[(1E)-2-(2-pyridinyl)ethenyl]-1H-indazol-6-yl]thio]-N-[5-(trifluoromethyl)-2-pyridinyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L12 ANSWER 60 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
References

ACCESSION NUMBER: 2000:908053 HCAPLUS  
DOCUMENT NUMBER: 134:207440  
TITLE: Selective Binding of cis-1,3,5-Cyclohexane Tricarboxylic Acid vs Its Epimeric trans Isomer by a Tripodal Amidopyridine Receptor; Crystal Structures of the 1:1 Complexes  
AUTHOR(S): Ballester, Pablo; Capo, Magdalena; Costa, Antoni; Deya, Pere M.; Gomila, Rosa; Decken, Andreas; Deslongchamps, Ghislain  
CORPORATE SOURCE: Departament de Quimica, Universitat de les Illes Balears, Palma de Mallorca, 07071, Spain  
SOURCE: Organic Letters (2001), 3(2), 267-270  
CODEN: ORLEF7; ISSN: 1523-7060  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB A tripodal tris-amidopyridine receptor forms a 1:1 complex with trans-1,3,5-cyclohexane tricarboxylic acid that is 1 order of magnitude less stable than the one formed with the corresponding cis-triacid epimer. The X-ray crystal structures of the complexes have been detd., confirming the binding geometry derived from NMR data in soln. and force-field calcs., and its geometrical features are used to explain the obsd. selectivity.

IT 329005-98-3P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (crystal structure; selective binding of cis-1,3,5-cyclohexane tricarboxylic acid vs its epimeric trans isomer by a tripodal amidopyridine receptor)

RN 329005-98-3 HCAPLUS

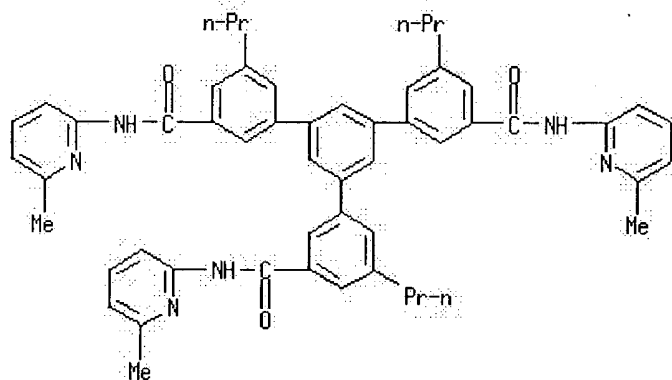
CN 1,3,5-Cyclohexanetricarboxylic acid, (1 $\alpha$ ,3 $\alpha$ ,5 $\alpha$ )-, compd. with N,N'-bis(6-methyl-2-pyridinyl)-5'-[3-[[6-methyl-2-pyridinyl)amino]carbonyl]-5-propylphenyl]-5,5''-dipropyl[1,1':3',1''-terphenyl]-3,3''-dicarboxamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 221021-04-1

CMF C54 H54 N6 O3

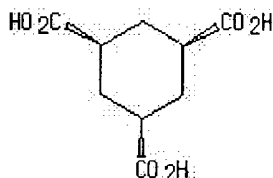




CM 2

CRN 16526-68-4  
CMF C9 H12 O6

Relative stereochemistry.



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 61 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
Citing References

ACCESSION NUMBER: 2000:814461 HCAPLUS  
DOCUMENT NUMBER: 133:362707  
TITLE: Preparation of pyridylethylpyridines as phosphodiesterase 4 inhibitors.  
INVENTOR(S): Cote, Bernard; Friesen, Richard; Frenette, Richard; Girard, Mario; Girard, Yves; Godbout, Cedrickx; Guay, Daniel; Hamel, Pierre; Blouin, Marc; Ducharme, Yves; Prescott, Sylvie  
PATENT ASSIGNEE(S): Merck Frosst Canada & Co., Can.  
SOURCE: PCT Int. Appl., 155 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000068198	A2	20001116	WO 2000-CA500	20000503
WO 2000068198	A3	20010405		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,  
 DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,  
 CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 6200993 B1 20010313 US 2000-551040 20000417  
 EP 1177175 A2 20020206 EP 2000-922400 20000503

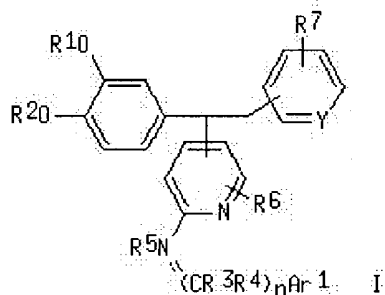
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO

AU 764258 B2 20030814 AU 2000-42829 20000503

PRIORITY APPLN. INFO.: US 1999-132532P P 19990505  
 WO 2000-CA500 W 20000503

OTHER SOURCE(S): MARPAT 133:362707

GI



AB Title compds. [I; Y = N, NO; R1, R2 = H, alkyl, haloalkyl; R3, R4 = H, alkyl; R3R4 = O, atoms to form a 5-7 membered carbocyclic ring; R5 = null, H, (substituted) alkyl, alkylcarbonyl, arylcarbonyl, alkoxy carbonyl, aryloxy carbonyl, O; R3R5 = atoms to form a 5-6 membered heterocyclic ring; dotted line = optional double bond; R6, R7 = H, halo, alkyl, haloalkyl, cyano; n = 0-6], were prepd. Thus, 4-[2-[3,4-bis(difluoromethoxy)phenyl]-2-(6-bromo-3-pyridyl)ethyl]pyridine (prepn. given) was heated with PhCH<sub>2</sub>NH<sub>2</sub> and CuI to give 72% 4-[2-[3,4-bis(difluoromethoxy)phenyl]-2-[6-(benzylamino)-3-pyridyl]ethyl]pyridine. The latter inhibited PDE 4 with IC<sub>50</sub> = 0.75 nM.

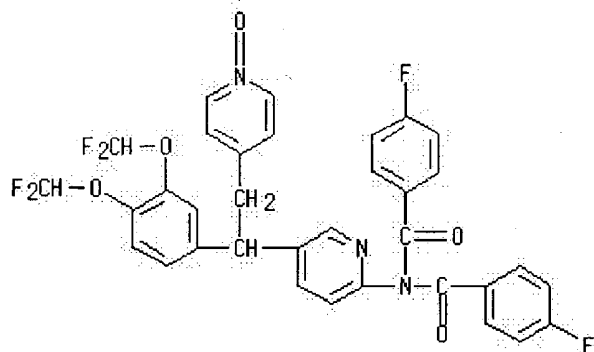
#### IT 306760-86-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(prepn. of pyridylethylpyridines as phosphodiesterase 4 inhibitors)

RN 306760-86-1 HCAPLUS

CN Benzamide, N-[5-[1-[3,4-bis(difluoromethoxy)phenyl]-2-(1-oxido-4-pyridinyl)ethyl]-2-pyridinyl]-4-fluoro-N-(4-fluorobenzoyl)- (9CI) (CA INDEX NAME)



L12 ANSWER 62 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
Citing References

ACCESSION NUMBER: 2000:771978 HCAPLUS  
DOCUMENT NUMBER: 134:71474  
TITLE: Template-induced and molecular recognition directed hierarchical generation of supramolecular assemblies from molecular strands  
AUTHOR(S): Berl, Volker; Krische, Michael J.; Huc, Ivan; Lehn, Jean-Marie; Schmutz, Marc  
CORPORATE SOURCE: Laboratoire de Chimie Supramoléculaire, ESA 7006 of the CNRS, ISIS, Université Louis Pasteur, Strasbourg, 67000, Fr.  
SOURCE: Chemistry--A European Journal (2000), 6(11), 1938-1946  
CODEN: CEUJED; ISSN: 0947-6539  
PUBLISHER: Wiley-VCH Verlag GmbH  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 134:71474

AB A linear oligo-isophthalamide strand undergoes a conformational reorganization upon binding of 1-decylcyanuric acid to afford a helical disklike object possessing radially disposed alkyl residues. Solvophobic and stacking interactions drive a "second level" self-assembly of the templated structure, the stacking of the helical disks, to yield fibers as revealed by electron microscopy. These data provide insight into the interplay of the different structural and interactional features of the mol. components towards the formation of supramol. fibers through sequential hierarchical self-assembly events and suggest design strategies for the effector-controlled generation of related supramol. assemblies. The binding const. of 1-decylcyanuric acid for the linear oligo-isophthalamide strand was evaluated under various conditions by NMR and computational methods.

IT 315234-90-3

RL: PRP (Properties)  
(prepn. of supramol. assemblies by hydrogen-bonding and template-driven mol. assocn. of a isophthalamide-base mol. strand with a cyanuric acid deriv.)

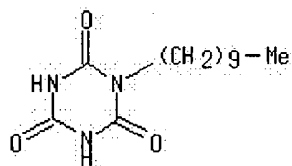
RN 315234-90-3 HCAPLUS

CN 1,3-Benzenedicarboxamide, 5-(decyloxy)-N,N'-bis[6-[[3-(decyloxy)-5-[[[6-[(1-oxodecyl)]amino]-2-pyridinyl]amino]carbonyl]benzoyl]amino]-, compd. with 1-decyl-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 315234-88-9

CMF C13 H23 N3 O3

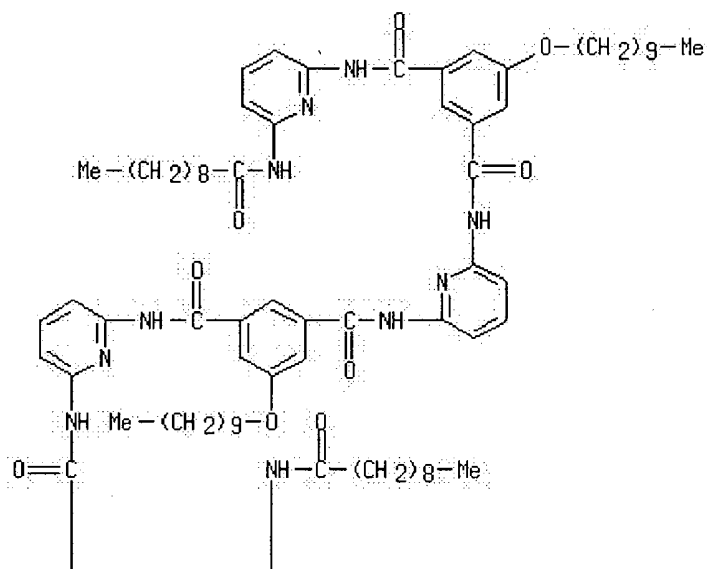


CM 2

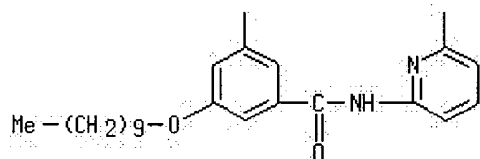
CRN 315234-86-7

CMF C94 H130 N12 O11

PAGE 1-A



PAGE 2-A



REFERENCE COUNT:

44

THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 63 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text	Citing References
--------------	----------------------

ACCESSION NUMBER:

2000:666695 HCAPLUS

DOCUMENT NUMBER:

133:252169

TITLE:

Preparation of benzamides for treating diseases  
mediated by cytokines

INVENTOR(S):

Brown, Dearg Sutherland

PATENT ASSIGNEE(S):

Astrazeneca AB, Swed.

SOURCE:

PCT Int. Appl., 96 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

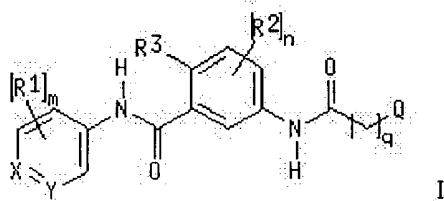
Patent

h eb c g cg b cg

eb

LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>WO 2000055120</u>	A1	20000921	<u>WO 2000-GB914</u>	20000313
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
<u>NZ 513726</u>	A	20010928	<u>NZ 2000-513726</u>	20000313
<u>EP 1163212</u>	A1	20011219	<u>EP 2000-909500</u>	20000313
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
<u>BR 2000009041</u>	A	20011226	<u>BR 2000-9041</u>	20000313
<u>TR 200102568</u>	T2	20020521	<u>TR 2001-200102568</u>	20000313
<u>JP 2002539187</u>	T2	20021119	<u>JP 2000-605551</u>	20000313
<u>AU 761291</u>	B2	20030529	<u>AU 2000-31780</u>	20000313
<u>ZA 2001006857</u>	A	20021120	<u>ZA 2001-6857</u>	20010820
<u>NO 2001004488</u>	A	20011114	<u>NO 2001-4488</u>	20010914
<u>US 6548514</u>	B1	20030415	<u>US 2001-936698</u>	20010917
<u>US 2003186966</u>	A1	20031002	<u>US 2003-353127</u>	20030129
PRIORITY APPLN. INFO.:				<u>GB 1999-6277</u> A 19990317
				<u>GB 2000-2472</u> A 20000203
				<u>WO 2000-GB914</u> W 20000313
				<u>US 2001-936698</u> A3 20010917
OTHER SOURCE(S): MARPAT 133:252169				
GI				



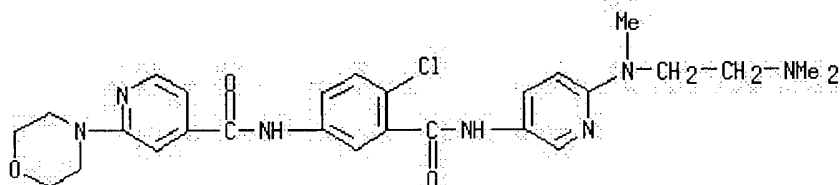
AB The title compds. [I; X = CH, N; Y = CH, N; m = 0-3; R1 = OH, halo, CF3, etc.; n = 0-3; R2 = OH, halo, CF3, etc.; R3 = H, halo, alkyl, alkoxy; q = 0-4; Q = aryl, aryloxy, arylalkoxy, etc.], useful in the treatment of diseases or medical conditions mediated by cytokines, were prepd. and formulated. E.g., a multi-step synthesis of benzamide I [X, Y = CH; R1 = 4-Pr; m = 1; R2 = H; R3 = Me; q = 0; Q = 4-NCC6H4] was given. In general, compds. I give over 30% inhibition of p38 $\alpha$  and/or p38 $\beta$  at up to 10  $\mu$ M.

IT 295349-53-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. of benzamides for treating diseases mediated by cytokines)

RN 295349-53-0 HCAPLUS

CN 4-Pyridinecarboxamide, N-[4-chloro-3-[[[6-[[2-(dimethylamino)ethyl]methylamino]-3-pyridinyl]amino]carbonyl]phenyl]-2-(4-morpholinyl)- (9CI) (CA INDEX NAME)

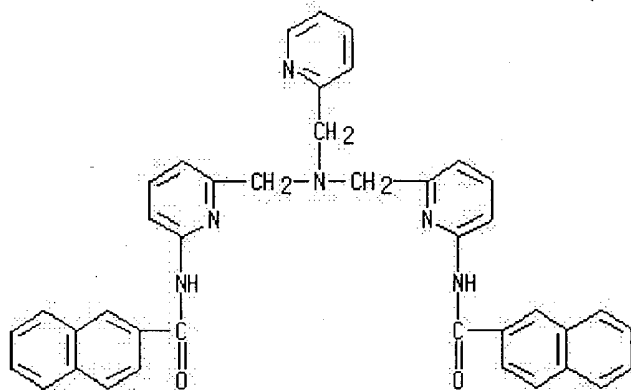


REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 64 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full  
Text

ACCESSION NUMBER: 2000:651049 HCAPLUS  
DOCUMENT NUMBER: 133:343788  
TITLE: A ruthenium(II)-pyridylamine complex showing a fluxional intramolecular  $\pi$ - $\pi$  interaction  
AUTHOR(S): Kojima, Takahiko; Hayashi, Ken-Ichi; Matsuda, Yoshihisa  
CORPORATE SOURCE: Department of Chemistry and Physics of Condensed Matter, Graduate School of Sciences, Kyushu University, Fukuoka, 812-8581, Japan  
SOURCE: Chemistry Letters (2000), (9), 1008-1009  
CODEN: CMLTAG; ISSN: 0366-7022  
PUBLISHER: Chemical Society of Japan  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB A novel ruthenium(II) complex having 2-naphthoylamide groups attached to TPA (tris(2-pyridylmethyl)amine), [RuCl(L)]PF<sub>6</sub> (L = bis(6-(2-naphthoylamido)-2-pyridylmethyl)2-pyridylmethylamine) was synthesized and characterized by <sup>1</sup>H NMR and x-ray crystallog. ([RuCl(L)]PF<sub>6</sub>·H<sub>2</sub>O·1/2EtOH: triclinic, space group P<sub>2</sub>1h<sub>1</sub>, R = 0.040). The 2-naphthoylamide arms exhibited fluxional behavior of intramol.  $\pi$ - $\pi$  interaction.  
IT 303187-36-2  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(for prepn. of ruthenium(II) bis(naphthoylamidopyridylmethyl)pyridylmethylamine chloro complex)  
RN 303187-36-2 HCAPLUS  
CN 2-Naphthalenecarboxamide, N,N'-[[[(2-pyridinylmethyl)imino]bis(methylene-6,2-pyridinediyl)]bis- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 65 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text

ACCESSION NUMBER: 2000:609187 HCAPLUS  
 DOCUMENT NUMBER: 133:305278  
 TITLE: Classification of Some Active Compounds and Their Inactive Analogues Using Two Three-Dimensional Molecular Descriptors Derived from Computation of Three-Dimensional Convex Hulls for Structures Theoretically Generated for Them  
 AUTHOR(S): Lin, Thy-Hou; Yu, Yih-Shiang; Chen, Hong-Jih  
 CORPORATE SOURCE: Department of Life Science, National Tsing Hua University, Hsinchu, Taiwan  
 SOURCE: Journal of Chemical Information and Computer Sciences (2000), 40(5), 1210-1221  
 CODEN: JCISD8; ISSN: 0095-2338  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Two three-dimensional (3D) mol. descriptors are used to classify 73 protease inhibitors against the human immunodeficiency virus type 1 (HIV-1). X-ray structures of these HIV-1 protease bound inhibitors are used as templates to generate the most probable bioactive conformations of the inhibitors. A convex hull computation algorithm is applied to each structure generated. The frequency of atoms lying on the vertexes of each hull is counted. Vertexes of the same at. charge state are then gathered together as a set of commonly exposed groups for all the structures generated. The first 3D descriptor is computed as the max. mol. path length among any three distinct commonly exposed groups, while the second 3D one is computed as the max. mol. path length among any three atoms of nonconvex hull vertexes. We find that the 73 HIV-1 protease inhibitors can be classified by the first 3D descriptor into two groups, which agrees with the result of visual classification using the activity data as a criterion for these compds. The classification scheme is then used to classify a database of 427 active trypsin inhibitors and their inactive analogs. The structures of these compds. are generated theor. from steps of energy minimization and mol. dynamics. Classification for all these compds. is performed using the SYBYL hierarchical clustering method on the first 3D descriptor and then the second 3D one computed. It is found that some inactive analogs are completely sepd. from the active inhibitors at the first stage of classification using the first 3D descriptor. Most of the highly active inhibitors are classified into a cluster at the second stage of classification using the second 3D descriptor. Finally, most of

these highly active inhibitors are sepd. from all the accompanying inactive analogs in the cluster through a structural alignment process using a set of commonly exposed groups detd. for them.

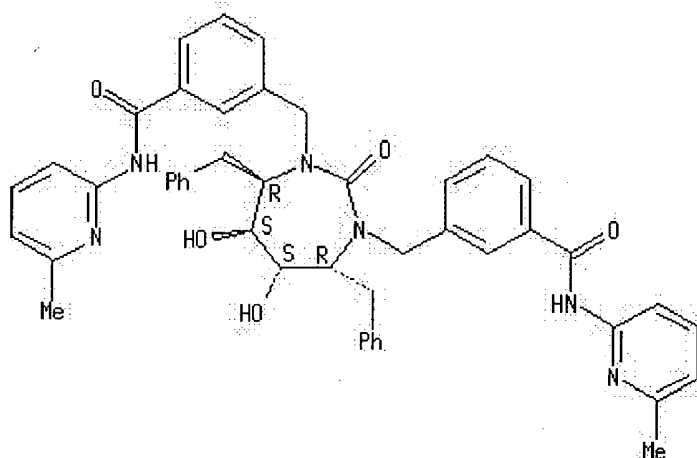
IT 183854-97-9

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(three-dimensional mol. descriptors in classifying HIV-1 protease inhibitors)

RN 183854-97-9 HCAPLUS

CN Benzamide, 3,3'-[[ (4R,5S,6S,7R)-tetrahydro-5,6-dihydroxy-2-oxo-4,7-bis(phenylmethyl)-1H-1,3-diazepine-1,3(2H)-diyl]bis(methylene)]bis[N-(6-methyl-2-pyridinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 66 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text References

ACCESSION NUMBER: 2000:553560 HCAPLUS  
DOCUMENT NUMBER: 133:164005  
TITLE: Preparation of substituted N-heterocyclyl benzamides and analogs as G-protein coupled heptahelical receptor binding compounds  
INVENTOR(S): Shiosaki, Kazumi; Fleming, Paul  
PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA  
SOURCE: PCT Int. Appl., 80 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000046203	A2	20000810	WO 2000-US3042	20000203
WO 2000046203	A3	20010301		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,



SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ,  
 BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,  
 DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,  
 CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1150955 A2 20011107 EP 2000-907184 20000203

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO

PRIORITY APPLN. INFO.:

US 1999-118893P

P 19990204

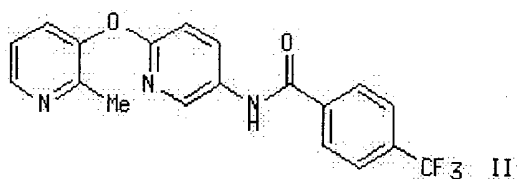
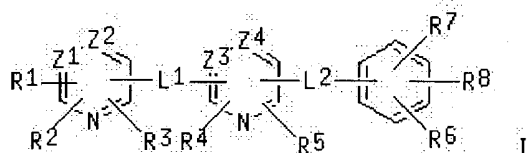
WO 2000-US3042

W 20000203

OTHER SOURCE(S):

MARPAT 133:164005

GI



AB The title compds. (I) [wherein Z1-Z4 = independently N or C; R1-R8 = independently H, alkyl(amino), alkenyl, alkynyl, alkoxy, thioalkyl, hydroxyalkyl, halo(alkyl), NH<sub>2</sub>, or carboxyl; L1 = O, S, NH, NR<sub>7</sub>, (CHR<sub>7</sub>)<sub>n</sub>, C(O), CR<sub>7</sub>OH, or O(CHR<sub>7</sub>)<sub>n</sub>; n = 1-3; L2 = a bond, CH<sub>2</sub>C(O), NHC(O), OC(O), C(O), CH<sub>2</sub>NHC(O), NHC(O)CH<sub>2</sub>, CHOH, (CH<sub>2</sub>)<sub>n</sub>, O, NH, O(CH<sub>2</sub>)<sub>m</sub>, NH(CH<sub>2</sub>)<sub>m</sub>, CH<sub>2</sub>CHOH, and NR<sub>8</sub>C(O); m = 0-3] were prepd. for the treatment of neurol., immunol., inflammatory, cancer, and other β-chemokine mediated disorders. For example, coupling of 2-methyl-3-hydroxypyridine with 2-chloro-5-nitropyridine in the presence of NaH (87%), followed by redn. of the nitro group using Fe/AcOH (51%) and acylation of the amine with 4-trifluoromethylbenzoyl chloride, gave II. In a time resolved fluorescence (TRF) assay, II showed very high binding affinity for the CCR10 receptor with IC<sub>50</sub> of < 5 μM.

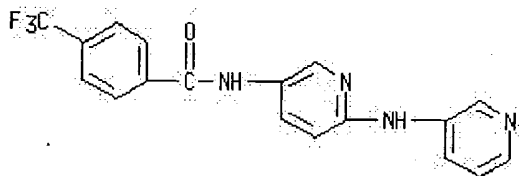
IT 287943-06-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(GPCR binding compd.; prepn. of substituted N-heterocyclyl benzamide β-chemokine antagonists and analogs by coupling hydroxyheterocycles with 2-chloro-5-nitroheterocycles, redn. to the amines, and acylation with benzoyl chlorides)

RN 287943-06-0 HCAPLUS

CN Benzamide, N-[6-(3-pyridinylamino)-3-pyridinyl]-4-(trifluoromethyl)- (9CI)  
 (CA INDEX NAME)



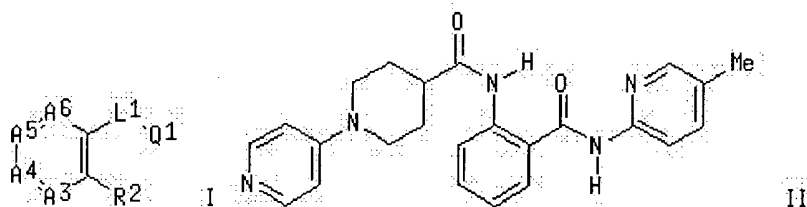
L12 ANSWER 67 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text	Chem References
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ACCESSION NUMBER: 2000:457059 HCAPLUS  
 DOCUMENT NUMBER: 133:89437  
 TITLE: Preparation of heteroaryl-substituted aromatic amides  
 as factor Xa inhibitors  
 INVENTOR(S): Beight, Douglas Wade; Craft, Trelia Joyce; Denny, Carl  
 Penman; Franciskovich, Jeffry Bernard; Goodson,  
 Theodore, Jr.; Hall, Steven Edward; Herron, David  
 Kent; Joseph, Sajan Pariyadan; Klimkowski, Valentine  
 Joseph; Masters, John Joseph; Mendel, David; Milot,  
 Guy; Pineiro-Nunez, Marta Maria; Sawyer, Jason Scott;  
 Shuman, Robert Theodore; Smith, Gerald Floyd; Tebbe,  
 Anne Louise; Tinsley, Jennifer Marie; Weir, Leonard  
 Crayton; Wikel, James Howard; Wiley, Michael Robert;  
 Yee, Ying Kwong  
 PATENT ASSIGNEE(S): Eli Lilly and Co., USA; Kyle, Jeffrey, Alan; et al.  
 SOURCE: PCT Int. Appl., 403 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>WO 2000039118</u>	A1	20000706	<u>WO 1999-US29946</u>	19991215
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
<u>CA 2361149</u>	AA	20000706	<u>CA 1999-2361149</u>	19991215
<u>EP 1140903</u>	A1	20011010	<u>EP 1999-964279</u>	19991215
<u>EP 1140903</u>	B1	20040804		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
<u>JP 2002533454</u>	T2	20021008	<u>JP 2000-591029</u>	19991215
<u>US 6635657</u>	B1	20031021	<u>US 2001-857751</u>	20010608
<u>US 2004029874</u>	A1	20040212	<u>US 2003-629760</u>	20030729
<u>US 6759414</u>	B2	20040706		
PRIORITY APPLN. INFO.:			<u>US 1998-113556P</u>	P 19981223
			<u>WO 1999-US29946</u>	W 19991215
			<u>US 2001-857751</u>	A3 20010608

OTHER SOURCE(S): MARPAT 133:89437  
 GI



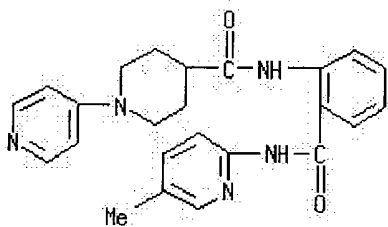
AB The title compds. [I; A3-A6, together with the two carbons to which they are attached, complete a substituted benzene in which A3 = CR3, A4 = CR4, A5 = CR5, and A6 = CR6 (wherein R3 = H, Me, MeO, etc.; one of R4 and R5 = H, alkyl, halo, etc.; the other of R4 and R5 = H; R6 = H, Me, F, etc.); L1 = CONH; Q1 = 2-pyridinyl (un)substituted at the 5-position, 3-pyridinyl (un)substituted at the 6-position, 2-pyrimidinyl (un)substituted at the 5-position, etc.; R2 = L2Q2 (L2 = NHCO, NHCH2, OCH2, etc.; Q2 = (un)substituted piperidinyl, piperazinyl, Ph, etc.)] and their pharmaceutically acceptable salts, useful as inhibitors of factor Xa (no data), were prepd. and formulated. E.g., a multi-step synthesis of II.HCl was given. In general, compds. I are effective at 0.01-1000 mg/kg/day.

IT 280768-65-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of heteroaryl-substituted arom. amides as factor Xa inhibitors)

RN 280768-65-2 HCAPLUS

CN 4-Piperidinecarboxamide, N-[2-[[5-methyl-2-pyridinyl]amino]carbonyl]phenyl]-1-(4-pyridinyl)-, dihydrochloride (9CI) (CA INDEX NAME)



# 2 HCl

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 68 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text

ACCESSION NUMBER: 2000:457058 HCAPLUS

DOCUMENT NUMBER: 133:73942

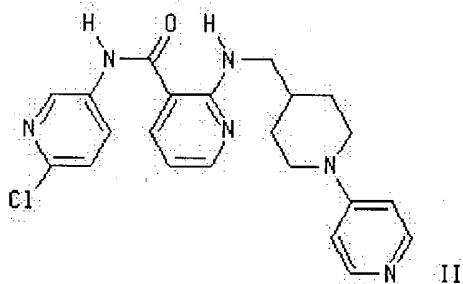
TITLE: Preparation of heteroroaromatic amides as factor Xa inhibitors

INVENTOR(S): Beight, Douglas Wade; Craft, Trelia Joyce; Franciskovich, Jeffery Bernard; Goodson, Theodore, Jr.; Hall, Steven Edward; Herron, David Kent; Joseph, Sajjan Pariyadan; Klimkowski, Valentine Joseph; Masters, John Joseph; Mendel, David; Milot, Guy; Pineiro-Nunez, Marta Maria; Sawyer, Jason Scott; Shuman, Robert Theodore; Smith, Gerald Floyd; Tebbe, Anne Louise; Tinsley, Jennifer Marie; Weir, Leonard Crayton; Wikel, James Howard; Wiley, Michael Robert; Yee, Ying Kwong

PATENT ASSIGNEE(S): Eli Lilly and Company, USA; Kyle, Jeffrey Alan  
 SOURCE: PCT Int. Appl., 93 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>WO 2000039117</u>	A1	20000706	<u>WO 1999-US29887</u>	19991215
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
<u>CA 2358095</u>	AA	20000706	<u>CA 1999-2358095</u>	19991215
<u>EP 1140905</u>	A1	20011010	<u>EP 1999-967352</u>	19991215
<u>EP 1140905</u>	B1	20030514		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
<u>AT 240316</u>	E	20030515	<u>AT 1999-967352</u>	19991215
<u>ES 2196917</u>	T3	20031216	<u>ES 1999-967352</u>	19991215
<u>US 6689780</u>	B1	20040210	<u>US 2001-857749</u>	20010608
PRIORITY APPLN. INFO.:				
			<u>US 1998-113452P</u>	P 19981223
			<u>EP 1999-967352</u>	A 19991215
			<u>WO 1999-US29887</u>	W 19991215

OTHER SOURCE(S): MARPAT 133:73942  
 GI



AB R2Z2ZCONHZ1R1 [I; R1 = Cl, F, Me; R2 = N-(un)substituted azacycloalkyl, 4-(un)substituted -1-piperazinyl, 4-aminocyclohexyl, 4-amino-1-piperidinyl, etc.; Z = (un)substituted-2,3- or -3,2-pyridinediyl, -5,4- or -4,5-pyrimidinediyl, -2,3-pyrazinediyl, etc.; Z1 = 2,5-pyridinediyl (R1 may addnl. = MeO or MeS), 2,5-pyrimidinediyl, 3,6-pyridazinediyl, 2,6-benzothiazole-diyl; Z2 = NHCOX, NHCO2X, NHCONHX, NHCH2; X = bond or CH2] were prepd. as factor Xa inhibitors (no data). Thus, 2-chloronicotinic acid was aminated by 1-(4-pyridinyl)piperidine-4-methylamine (prepn. given) and the product amidated by 2-amino-5-chloropyridine to give title compd. II.

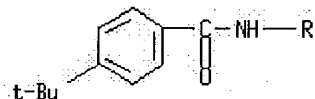
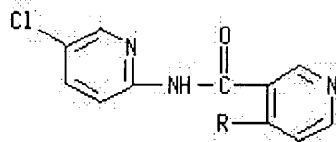
IT **280115-68-6P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of heteroroarom. amides as factor Xa inhibitors)

RN 280115-68-6 HCAPLUS

CN 3-Pyridinecarboxamide, N-(5-chloro-2-pyridinyl)-4-[[4-(1,1-dimethylethyl)benzoyl]amino]- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

2

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 69 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text	Citing References
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ACCESSION NUMBER: 2000:457052 HCAPLUS

DOCUMENT NUMBER: 133:89436

TITLE:

INVENTOR(S):

Antithrombotic aryl amides and their preparation  
 Beight, Douglas Wade; Craft, Trelia Joyce;  
 Franciskovich, Jeffry Bernard; Goodson, Theodore, Jr.;  
 Hall, Steven Edward; Herron, David Kent; Joseph,  
 Sajan; Klimkowski, Valentine Joseph; Masters, John  
 Joseph; Mendel, David; Milot, Guy; Pineiro-Nunez,  
 Marta Maria; Sawyer, Jason Scott; Shuman, Robert  
 Theodore; Smith, Gerald Floyd; Tebbe, Anne Louise;  
 Tinsley, Jennifer Marie; Weir, Leonard Crayton; Wikel,  
 James Howard; Wiley, Michael Robert; Yee, Ying Kwong  
 Eli Lilly and Company, USA; Kyle, Jeffrey Alan  
 PCT Int. Appl., 80 pp.  
 CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000039111	A1	20000706	WO 1999-US29832	19991215
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG CA 2358091 AA 20000706 CA 1999-2358091 19991215 EP 1140881 A1 20011010 EP 1999-964269 19991215 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO JP 2004522689 T2 20040729 JP 2000-591022 19991215				

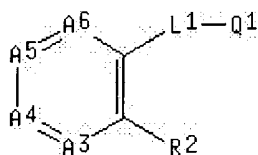
US 6610704	B1	20030826	US 2001-857747	20010608
US 2003191153	A1	20031009	US 2003-374124	20030225
US 6716855	B2	20040406		
US 2003199505	A1	20031023	US 2003-378108	20030226
US 6716839	B2	20040406		
US 2003199504	A1	20031023	US 2003-377906	20030228
US 6710057	B2	20040323		
US 2003212069	A1	20031113	US 2003-382614	20030305
US 6780878	B2	20040824		

## PRIORITY APPLN. INFO.:

US 1998-113778P	P	19981223
WO 1999-US29832	W	19991215
US 2001-857747	A3	20010608

OTHER SOURCE(S): CASREACT 133:89436; MARPAT 133:89436

GI



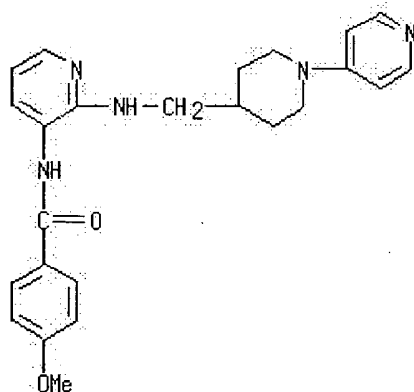
AB Title compds. I [A3-A6, together with the 2 C atoms to which they are attached, form a substituted benzene, A3 = CR3, A4 = CR4, A5 = CR5, A6 = CR6, R3 = H, R4 or R5 = H, Me, F, Cl, carboxy, alkoxycarbonyl, amino, sulfonylamido, and the other of R4 or R5 = H, R6 = H; A3-A6, together with the 2 C atoms to which they are attached, form a substituted heteroarom. ring in which either one of A3-A6 = N and the others = CR3-CR6, or 2 non-adjacent A3-A6 are each N, and each of the others is CR3-CR6, resp., where R3-R6 = H, Me, or 1 of R3-R6 attached to a C not bonded to an N is Cl and the others are H, preferably, none of A3-A6 = N and each of R3-R6 = H, or each of R3, R4 and R6 = H and R5 = Cl, or A3 = N and each of A4-A6 = CH; L1 = NHCO, CONH, CH2NH; Q1 = (un)substituted Ph, 2-furanyl, 2-thienyl, 4-thiazolyl, 2-pyridyl, 2-naphthyl, 1,2-dihydrobenzofuran-5-yl or -6-yl, 1,2-benzisoxazol-6-yl, 6-indolyl, 6-indolyl, 6-indazolyl, 5-benzimidazolyl, 5-benzotriazolyl; R2 = NHCH2Q2, Q2 = substituted Ph or (un)substituted 4-piperidinyl, preferably, R2 = 4-(4-morpholinyl)benzylamino, [1-(4-pyridinyl)piperidin-4-ylmethyl]amino, (1-isopropylpiperidin-4-ylmethyl)amino] or their pharmaceutically acceptable salts and pharmaceutical compns., useful as inhibitors of blood-coagulation factor Xa (no data), are claimed, along with a process for their prepn. and synthetic intermediates. In an example, I [A3 = N, A4-A6 = CH; L1 = NHCO; Q1 = 4-MeOC6H4; R2 = [1-(4-pyridinyl)piperidin-4-ylmethyl]amino] is prepd. in 3 steps starting from 2-chloro-3-nitropyridine and 1-(4-pyridyl)piperidine-4-methylamine (prepn. given).

## IT 280556-53-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of aryl amides as antithrombotics)

RN 280556-53-8 HCAPLUS

CN Benzamide, 4-methoxy-N-[2-[[[1-(4-pyridinyl)-4-piperidinyl]methyl]amino]-3-pyridinyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 70 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text References

ACCESSION NUMBER: 2000:335387 HCAPLUS  
 DOCUMENT NUMBER: 132:334364  
 TITLE: Preparation of anthranilic acid amides as vascular endothelial growth factor receptor inhibitors.  
 INVENTOR(S): Huth, Andreas; Seidelmann, Dieter; Thierauch, Karl-Heinz; Bold, Guido; Manley, Paul William; Furet, Pascal; Wood, Jeanette Marjorie; Mestan, Jurgen; Bruggen, Jose; Ferrari, Stefano; Kruger, Martin; Ottow, Eckhard; Menrad, Andreas; Schirner, Michael  
 PATENT ASSIGNEE(S): Schering Aktiengesellschaft, Germany; Novartis Aktiengesellschaft  
 SOURCE: PCT Int. Appl., 96 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000027819	A2	20000518	WO 1999-EP8478	19991109
WO 2000027819	A3	20000817		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
DE 19910396	A1	20000907	DE 1999-19910396	19990303
DE 19910396	C2	20011213		
BR 9915553	A	20010814	BR 1999-15553	19991109
EP 1129074	A2	20010905	EP 1999-953967	19991109
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
TR 200101307	T2	20020521	TR 2001-200101307	19991109
JP 2002529452	T2	20020910	JP 2000-580999	19991109
EE 200100258	A	20021216	EE 2001-258	19991109

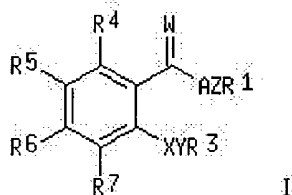
NZ 511413	A	20040130	NZ 1999-511413	19991109
AU 771180	B2	20040318	AU 2000-10454	19991109
NO 2001002245	A	20010710	NO 2001-2245	20010507
BG 105588	A	20020430	BG 2001-105588	20010611

PRIORITY APPLN. INFO.:

GB 1998-24579	A	19981110
DE 1999-19910396	A	19990303
WO 1999-EP8478	W	19991109

OTHER SOURCE(S):                    MARPAT 132:334364

GI



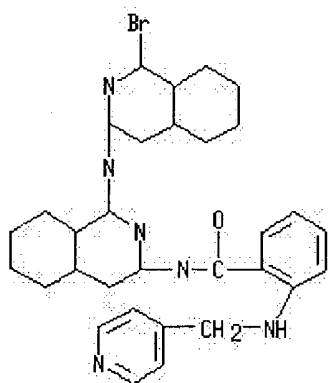
AB Title compds. [I; A = NR<sub>2</sub>; W = O, S, H<sub>2</sub>, NR<sub>8</sub>; Z = NR<sub>10</sub>, N, NR<sub>10</sub>(CH<sub>2</sub>)<sub>q</sub>, alkyl, etc.; q = 1-6; AZR<sub>1</sub> = tetrahydroisoquinolinyl, indazolyl, 5-chloroindolyl, etc.; R<sub>1</sub> = (substituted) aryl, heteroaryl; R<sub>2</sub> = H, alkyl; R<sub>3</sub> = (substituted) mono- or bicyclic aryl, heteroaryl; R<sub>4</sub>-R<sub>7</sub> = H, halo, (substituted) alkoxy, alkyl, carboxyalkyl; R<sub>5</sub>R<sub>6</sub> = dioxetanyl; R<sub>8</sub>, R<sub>10</sub> = H, alkyl]. Thus, Me N-(4-pyridylmethyl)anthranilate (prepn. given) was stirred with Ph(CH<sub>2</sub>)<sub>3</sub>NH<sub>2</sub> and Me<sub>3</sub>Al were stirred in PhMe to give N-(3-phenylprop-1-yl)-N<sub>2</sub>-(4-pyridylmethyl)anthranilamide. The latter inhibited VEGFR I with IC<sub>50</sub> = 0.05 μM.

IT **267891-25-8P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of anthranilic acid amides as VEGF receptor inhibitors)

RN 267891-25-8 HCAPLUS

CN Benzamide, N-[1-[(1-bromo-3-isoquinolinyl)amino]-3-isoquinolinyl]-2-[(4-pyridinylmethyl)amino]- (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L12 ANSWER 71 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN .



ACCESSION NUMBER:                    2000:196152 HCAPLUS  
Correction of: 1999:784096

DOCUMENT NUMBER:                    132:194297  
Correction of: 132:12266



TITLE: Preparation of N-acylarylalanines as  $\alpha 4$  integrin antagonists

INVENTOR(S): Head, John Clifford; Warrellow, Graham John; Porter, John Robert; Archibald, Sarah Catherine

PATENT ASSIGNEE(S): Celltech Therapeutics Limited, UK

SOURCE: PCT Int. Appl., 47 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

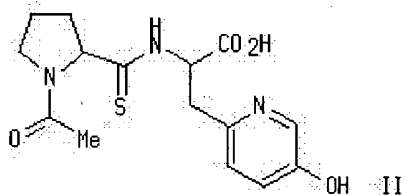
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>WO 9962901</u>	A1	19991209	<u>WO 1999-GB1741</u>	19990603
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
<u>US 6110945</u>	A	20000829	<u>US 1999-323966</u>	19990602
<u>CA 2331791</u>	AA	19991209	<u>CA 1999-2331791</u>	19990603
<u>AU 9941566</u>	A1	19991220	<u>AU 1999-41566</u>	19990603
<u>AU 765979</u>	B2	20031009		
<u>EP 1084119</u>	A1	20010321	<u>EP 1999-925183</u>	19990603
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI			
<u>JP 2002517391</u>	T2	20020618	<u>JP 2000-552112</u>	19990603
<u>US 6369229</u>	B1	20020409	<u>US 2000-538918</u>	20000330
<u>PRIORITY APPLN. INFO.:</u>			<u>GB 1998-11969</u>	A 19980603
			<u>US 1999-323966</u>	A3 19990602
			<u>WO 1999-GB1741</u>	W 19990603

OTHER SOURCE(S): MARPAT 132:194297  
GI



AB R1Z1ZZ2Z3CRR4R5 [I; R = CO<sub>2</sub> or deriv. thereof (sic); R<sub>1</sub> = H, (hetero)cycloaliph. group, (hetero)aryl; R<sub>4</sub> = H or Me; R<sub>5</sub> = NHCOR<sub>6</sub>, NHCSR<sub>6</sub>, etc.; R<sub>6</sub> = (hetero)(cyclo)aliph. group, (hetero)aryl, etc.; Z = bond or linker atom or group (sic); Z<sub>1</sub> = bond, divalent (hetero)aliph. group; Z<sub>2</sub> = pyridinediyl, pyrimidinediyl, pyrazinediyl, etc.; Z<sub>3</sub> = bond or alkylene] were prep'd. Thus, Ph<sub>2</sub>CHNHCH<sub>2</sub>CO<sub>2</sub>Et was alkylated by 2-bromomethyl-5-phenylsulfonyloxypyridine and the N-protected product acylated by N-acetyl-D-thiopropine to give, after sapon., a diastereomeric mixt. of title comp'd. II. Data for biol. activity of I were given.

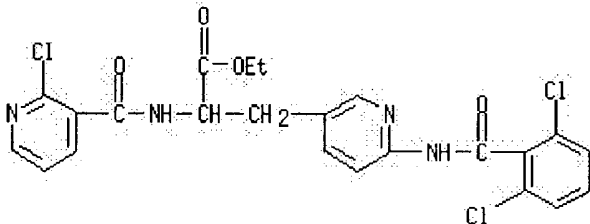
IT 251458-86-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of N-acylarylalanines as  $\alpha 4$  integrin antagonists)

RN. 251458-86-3 HCAPLUS

CN 3-Pyridinepropanoic acid,  $\alpha$ -[[ (2-chloro-3-pyridinyl)carbonyl]amino]-  
6-[(2,6-dichlorobenzoyl)amino]-, ethyl ester (9CI) (CA INDEX NAME)



L12 ANSWER 72 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text References

ACCESSION NUMBER: 2000:145222 HCAPLUS  
DOCUMENT NUMBER: 132:278892  
TITLE: Troger's Base Molecular Scaffolds in Dicarboxylic Acid Recognition  
AUTHOR(S): Goswami, Shyamaprosad; Ghosh, Kumaresh; Dasgupta, Swagata  
CORPORATE SOURCE: Department of Chemistry, Bengal Engineering College (Deemed University) Botanic Garden, Howrah, 711 103, India  
SOURCE: Journal of Organic Chemistry (2000), 65(7), 1907-1914  
CODEN: JOCEAH; ISSN: 0022-3263  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Artificial receptors (I,II,III,IV,and V) have been designed and synthesized from simple precursors. The chain length selectivity studies of dicarboxylic acids within the cavities of new fluorescent Troger's base mol. frameworks (I, II,and III) have been carried out with a crit. examn. of their role of rigidity as well as flexibility in selective binding in comparison to receptor V. The chiral resolu. of the racemic Troger's base receptors (I and II) by chiral recognition with (+)- camphoric acid using hydrogen-bonding interactions has been studied.

IT **263909-11-1P**

RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)  
(Troger's base mol. scaffolds in dicarboxylic acid recognition)

RN 263909-11-1 HCAPLUS

CN Benzamide, 3,3'-(1,2-ethanediyl)bis[N-(6-methyl-2-pyridinyl)- (9CI) (CA INDEX NAME)

LANGUAGE: English

AB Supramol. effects on the intramol. Diels-Alder (IMDA) reaction of substituted furfurylfumaramides are studied using a series of synthetic receptors with differentially positioned hydrogen bonding groups. Using temp. jump techniques, an increase of up to 30-fold in the rate of the IMDA reaction was detd. for a receptor that is complementary to the transition state structure compared to one that binds most strongly to the starting material.

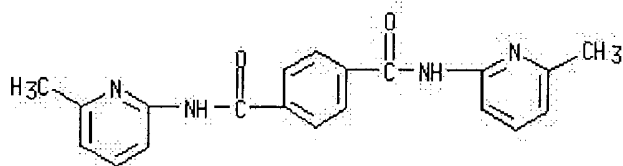
IT 129708-38-9

RL: PRP (Properties)

(effect of, on intramol. Diels-Alder reaction of furfurylfumaramide)

RN 129708-38-9 HCAPLUS

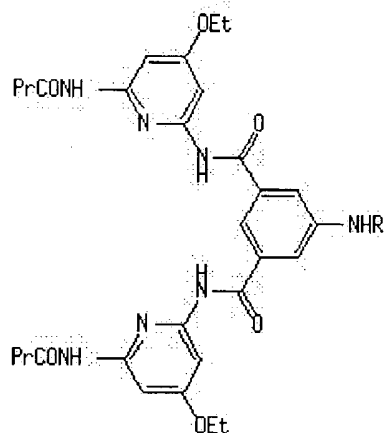
CN 1,4-Benzenedicarboxamide, N,N'-bis(6-methyl-2-pyridinyl)- (9CI) (CA INDEX NAME)



L12 ANSWER 143 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text [Citing References](#)

ACCESSION NUMBER: 1990:631636 HCAPLUS  
 DOCUMENT NUMBER: 113:231636  
 TITLE: Hydrogen-bonding self-assembly of multichromophore structures  
 AUTHOR(S): Tecilla, Paolo; Dixon, Robert P.; Slobodkin, Gregory; Alavi, David S.; Waldeck, David H.; Hamilton, Andrew D.  
 CORPORATE SOURCE: Dep. Chem., Univ. Pittsburgh, Pittsburgh, PA, 15260, USA  
 SOURCE: Journal of the American Chemical Society (1990), 112(25), 9408-10  
 CODEN: JACSAT; ISSN: 0002-7863  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



I.

AB Complementary hydrogen bonding groups have been covalently linked to

different redox or photoactive chromophores, e.g., I (R = ferrocenylcarbonyl). Static dynamic fluorescence spectroscopic studies show that matched subunits will self-assemble in soln. (at  $10^{-5}$ - $10^{-6}$  M) to form multichromophore aggregates with energy transfer quenching between the chromophores.

IT **130350-29-7P**

RL: PRP (Properties); PREP (Preparation)  
(formation and fluorescence of)

RN 130350-29-7 HCAPLUS

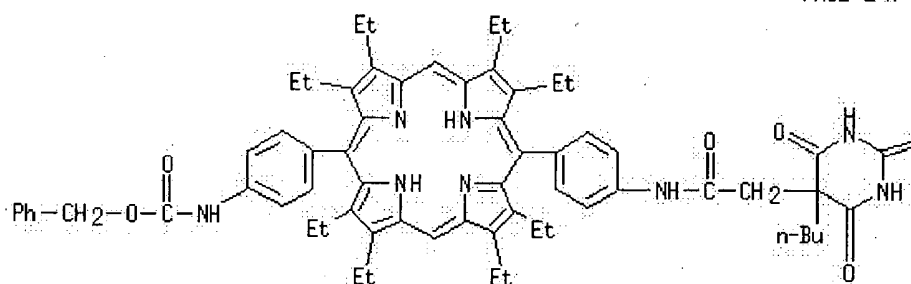
CN Carbamic acid, [4-[15-[4-[[5-butylhexahydro-2,4,6-trioxo-5-pyrimidinyl]acetyl]amino]phenyl]-2,3,7,8,12,13,17,18-octaethyl-21H,23H-porphin-5-yl]phenyl]-, phenylmethyl ester, compd. with 5-[[[5-(dimethylamino)-1-naphthalenyl]sulfonyl]amino]-N,N'-bis[4-ethoxy-6-[(1-oxobutyl)amino]-2-pyridinyl]-1,3-benzenedicarboxamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 130326-58-8

CMF C66 H74 N8 O6

PAGE 1-A



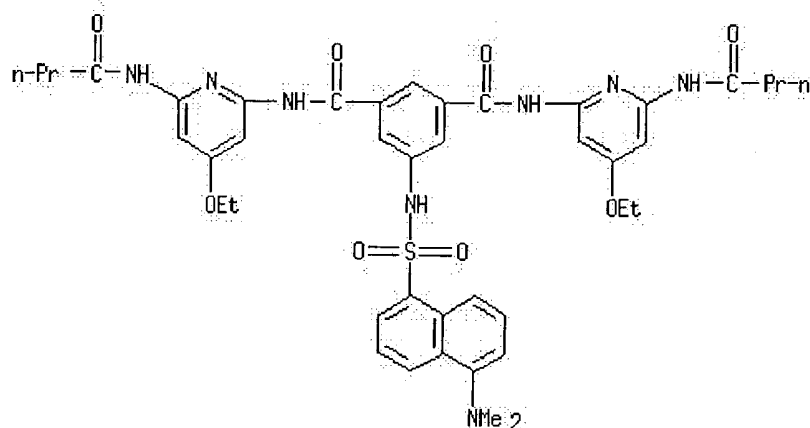
PAGE 1-B

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CM 2

CRN 130326-57-7

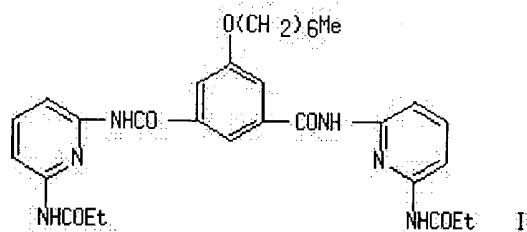
CMF C42 H48 N8 O8 S



L12 ANSWER 144 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text      References

ACCESSION NUMBER: 1990:627003 HCAPLUS  
 DOCUMENT NUMBER: 113:227003  
 TITLE: Transition-state stabilization and molecular recognition: acceleration of phosphoryl-transfer reactions by an artificial receptor  
 AUTHOR(S): Tecilla, Paolo; Chang, Suk Kyu; Hamilton, Andrew D.  
 CORPORATE SOURCE: Dep. Chem., Univ. Pittsburgh, Pittsburgh, PA, 15260, USA  
 SOURCE: Journal of the American Chemical Society (1990), 112(26), 9586-90  
 CODEN: JACSAT; ISSN: 0002-7863  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



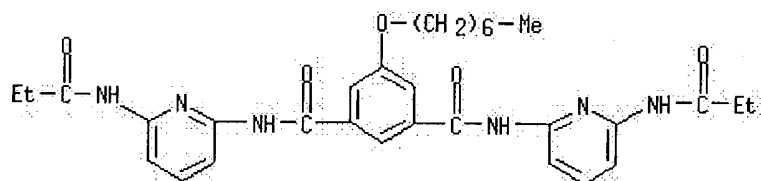
AB An artificial receptor (I) that is complementary to the proposed trigonal-bipyramidal intermediate for phosphoryl-transfer reactions has been designed. Kinetic measurements with  $^{31}\text{P}$  NMR methods show that the receptor causes up to a 10-fold acceleration in the aminolysis of phosphorodiamidic chloride derivs., proceeding via an associative mechanism.

IT **129648-66-4P**

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. and phosphoryl transfer reaction acceleration by, transition state stabilization and enzymic reaction mechanisms in relation to)

RN **129648-66-4** HCAPLUS

CN 1,3-Benzenedicarboxamide, 5-(heptyloxy)-N,N'-bis[6-[(1-oxopropyl)amino]-2-pyridinyl]- (9CI) (CA INDEX NAME)



L12 ANSWER 145 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text      Citing References

ACCESSION NUMBER: 1990:571401 HCAPLUS  
 DOCUMENT NUMBER: 113:171401  
 TITLE: Molecular recognition: a remarkably simple receptor for the selective complexation of dicarboxylic acids  
 AUTHOR(S): Garcia-Tellado, Fernando; Goswami, Shyamaprosad; Chang, Suk Kyu; Geib, Steven J.; Hamilton, Andrew D.  
 CORPORATE SOURCE: Dep. Chem., Univ. Pittsburgh, Pittsburgh, PA, 15260, USA  
 SOURCE: Journal of the American Chemical Society (1990), 112(20), 7393-4  
 CODEN: JACSAT; ISSN: 0002-7863  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB A new and remarkably simple receptor for dicarboxylic acids is prep'd. from the reaction of 2-amino-6-methylpyridine and terephthaloyl dichloride. <sup>1</sup>H NMR and x-ray crystallog. studies on the complex confirm the formation of four hydrogen bonds and the position of the alkyl chain beneath the benzene ring.

IT 129708-40-3

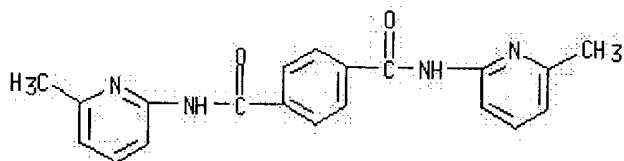
RL: PRP (Properties)  
 (formation const. of)

RN 129708-40-3 HCAPLUS

CN Pentanedioic acid, comp'd. with N,N'-bis(6-methyl-2-pyridinyl)-1,4-benzenedicarboxamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 129708-38-9  
 CMF C20 H18 N4 O2



CM 2

CRN 110-94-1  
 CMF C5 H8 O4

HO<sub>2</sub>C-(CH<sub>2</sub>)<sub>3</sub>-CO<sub>2</sub>H

L12 ANSWER 146 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text      Citing References

ACCESSION NUMBER: 1990:76956 HCAPLUS  
 DOCUMENT NUMBER: 112:76956  
 TITLE: Preparation of tertiary-butylphenylcarbamoylpyridines  
 as cardiovascular agents  
 INVENTOR(S): Von der Saal, Wolfgang; Mertens, Alfred; Zilch,  
 Harald; Boehm, Erwin; Martin, Ulrich  
 PATENT ASSIGNEE(S): Boehringer Mannheim G.m.b.H., Fed. Rep. Ger.  
 SOURCE: Ger. Offen., 13 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3804346	A1	19890824	DE 1988-3804346	19880212
PRIORITY APPLN. INFO.:			DE 1988-3804346	19880212

OTHER SOURCE(S): CASREACT 112:76956; MARPAT 112:76956

GI For diagram(s), see printed CA Issue.

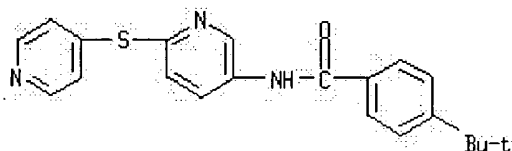
AB The title compds. [I; R1 = H, alkyl, alkenyl, alkynyl, cycloalkyl,  
 cycloalkenyl, halo, OH, alkoxy, alkenyloxy, alkynyloxy, cycloalkoxy,  
 cycloalkenyloxy, alkylthio, imidazolyl, triazolyl, morpholinyl,  
 thiomorphilinyl, (substituted) pyridinyloxy, pyridinylthio, quinolinyl,  
 naphthyloxy, indolyloxy, oxindolyloxy, etc.; A-B = CONH, NHC(=O)]; useful as  
 cardiovascular agents (no data), were prepd. Thus, 4-Me3CC6H4COC(=O)N in  
 CH2Cl2 was added to 5-amino-2-(1-cyanophenyloxy)pyridine and Et3N in  
 CH2Cl2 with ice cooling. The mixt. was stirred 10 min at room temp. to  
 give 23% 4-tert-butyl-N-[6-(4-cyanophenyloxy)-3-pyridinyl]benzamide.

IT 125125-24-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
 study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);  
 BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. of, as cardiovascular agent)

RN 125125-24-8 HCAPLUS

CN Benzamide, 4-(1,1-dimethylethyl)-N-[6-(4-pyridinylthio)-3-pyridinyl]-  
 (9CI) (CA INDEX NAME)



L12 ANSWER 147 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
 Citations

ACCESSION NUMBER: 1989:589885 HCAPLUS  
 DOCUMENT NUMBER: 111:189885  
 TITLE: Nucleotide recognition by macrocyclic receptors  
 AUTHOR(S): Hamilton, Andrew D.; Muehldorf, Alex; Chang, Suk Kyu;  
 Pant, Nalin; Goswami, Shyamaprosad; Van Engen, Donna  
 CORPORATE SOURCE: Dep. Chem., Princeton Univ., Princeton, NJ, 08544, USA  
 SOURCE: Journal of Inclusion Phenomena and Molecular  
 Recognition in Chemistry (1989), 7(1), 27-38  
 CODEN: JIMCEN; ISSN: 0167-7861  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

OTHER SOURCE(S): CASREACT 111:189885

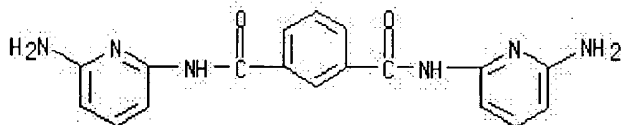
AB Complementary positioning of recognition sites (particularly H bonding, stacking and hydrophobic groups) into a macrocyclic receptor structure can lead to very strong and specific complexation of uncharged org. mols.

IT 112817-57-9

RL: RCT (Reactant); RACT (Reactant or reagent)  
(condensation of, with acid chlorides)

RN 112817-57-9 HCAPLUS

CN 1,3-Benzenedicarboxamide, N,N'-bis(6-amino-2-pyridinyl)- (9CI) (CA INDEX NAME)



L12 ANSWER 148 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text References

ACCESSION NUMBER: 1988:630812 HCAPLUS

DOCUMENT NUMBER: 109:230812

TITLE: Preparation of N,N'-bis(pyridyl- and pyrazinylalkyl)diimides as materials for polymers and dyes

INVENTOR(S): Niwa, Takakazu; Kurohara, Takayuki; Motoyama, Yukio

PATENT ASSIGNEE(S): Koei Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>JP 63091384</u>	A2	19880422	<u>JP 1986-238661</u>	19861007
<u>JP 07025751</u>	B4	19950322		

PRIORITY APPLN. INFO.: JP 1986-238661 19861007

OTHER SOURCE(S): CASREACT 109:230812; MARPAT 109:230812

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Title compds. I (R1, R2 = H, C1-3 alkyl, PhCH2; X = CH, N; R = C6H2, C6H3C6H3, C6H3COC6H3, C6H3OC6H3; n = 0, 1) are prepd. either directly or via amide II by condensation of dicarboxylic acid anhydride III and amine IV. A mixt. of 2-amino-6-picoline 4.32, 3,3',4,4'-benzophenonetetracarboxylic dianhydride 6.44, and 3,5-lutidine 70 g was heated at 170° with removal of the produced H2O to give 9.5 g imide V.

IT 117702-90-6P

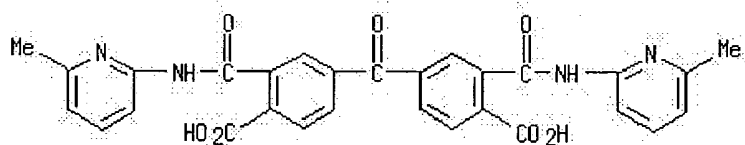
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of, as intermediate for diimide)

RN 117702-90-6 HCAPLUS

CN Benzoic acid, 4,4'-carbonylbis[2-[(6-methyl-2-pyridinyl)amino]carbonyl]-



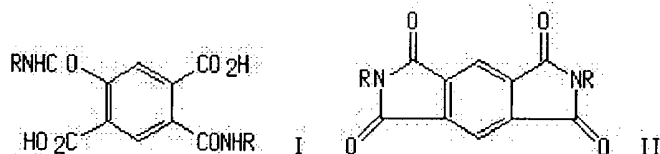
(9CI) (CA INDEX NAME)



L12 ANSWER 149 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text	Citing References
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ACCESSION NUMBER: 1988:416608 HCAPLUS  
 DOCUMENT NUMBER: 109:16608  
 TITLE: The synthesis of pyromellitic diacids and pyromellitdiimides and their effect on the human serum cholinesterase activity in vitro  
 AUTHOR(S): Al-Azzawi, Mohammad J.; Atto, Amir T.; Al-Ahdami, Balqiz W.; Ali, Imad T.  
 CORPORATE SOURCE: Biol. Res. Cent., Baghdad, Iraq  
 SOURCE: Journal of Biological Sciences Research (1988), 19(1), 85-93  
 CODEN: JBSREF; ISSN: 1012-344X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



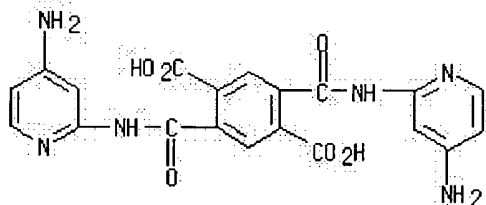
AB Eight pyromellitic diacids I (R = substituted Ph or pyridyl or tetrazyl) were prep'd. by reaction of amines with pyromellitic dianhydride and then 4 of them were cyclized by dehydration with the acetic anhydride-sodium acetate system to form the corresponding diimides II (R = substituted phenyl). I and II dose-dependently inhibited cholinesterase of human blood serum.

IT **114932-56-8P**

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. and cholinesterase of blood serum of humans inhibition by and cyclization of)

RN **114932-56-8** HCAPLUS

CN 1,4-Benzenedicarboxylic acid, 2,5-bis[[4-amino-2-pyridinyl)amino]carbonyl]- (9CI) (CA INDEX NAME)



L12 ANSWER 150 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text	Chem References
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ACCESSION NUMBER: 1988:112419 HCAPLUS  
 DOCUMENT NUMBER: 108:112419  
 TITLE: Molecular recognition of biologically interesting substrates: synthesis of an artificial receptor for barbiturates employing six hydrogen bonds  
 AUTHOR(S): Chang, Suk Kyu; Hamilton, Andrew D.  
 CORPORATE SOURCE: Dep. Chem., Princeton Univ., Princeton, NJ, 08544, USA  
 SOURCE: Journal of the American Chemical Society (1988), 110(4), 1318-19  
 CODEN: JACSAT; ISSN: 0002-7863  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 108:112419  
 GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

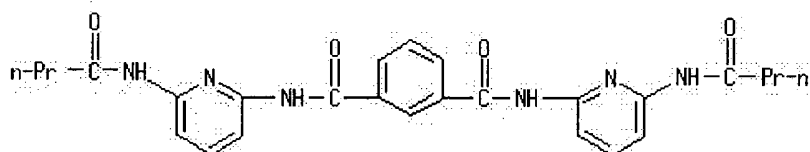
AB The synthesis and binding properties of the macrocycle I, a novel receptor for barbiturates, is reported. Thus, 3-ClCOC<sub>6</sub>H<sub>4</sub>COCl was treated with 2,6-diaminopyridine and Et<sub>3</sub>N in THF to give 79% the bis(aminopyridyl)isophthalamide II (R = H), which cyclocondensed with 4-ClCO(CH<sub>2</sub>)<sub>3</sub>OC<sub>6</sub>H<sub>4</sub>CM<sub>2</sub>C<sub>6</sub>H<sub>4</sub>O(CH<sub>2</sub>)<sub>3</sub>COCl-4 in THF-Et<sub>3</sub>N at high diln. to give 12% I. The incorporation of 2 2,6-diaminopyridine units into the macrocyclic structure of I provides 6 complementary hydrogen bonds to barbituric acid derivs., resulting in a strong binding (K<sub>s</sub> = 1.37 × 10<sup>6</sup> M<sup>-1</sup> for barbital) that is almost 100 fold greater than that (K<sub>s</sub> = 2.08 × 10<sup>4</sup> M<sup>-1</sup>) to the acyclic analog II (R = PrCO).

IT 112817-60-4

RL: PRP (Properties)  
 (binding affinity of, for barbiturates)

RN 112817-60-4 HCAPLUS

CN 1,3-Benzenedicarboxamide, N,N'-bis[6-[(1-oxobutyl)amino]-2-pyridinyl]-  
 (9CI) (CA INDEX NAME)

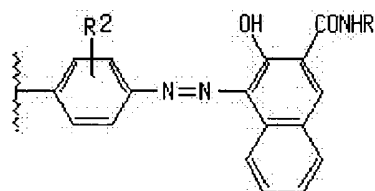
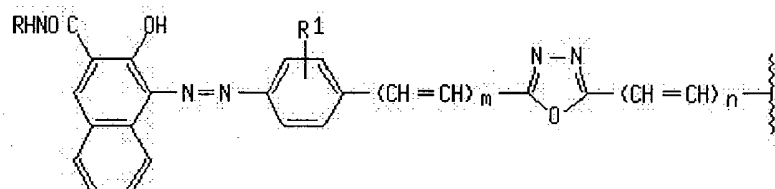


L12 ANSWER 151 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

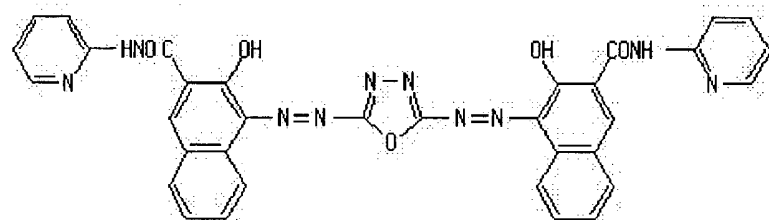
Full Text	Chem References
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ACCESSION NUMBER: 1985:140808 HCAPLUS  
 DOCUMENT NUMBER: 102:140808  
 TITLE: Electrophotographic photoreceptor  
 PATENT ASSIGNEE(S): Mitsubishi Paper Mills, Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59206841	A2	19841122	JP 1983-79656	19830507
JP 03000623	B4	19910108		
PRIORITY APPLN. INFO.:			JP 1983-79656	19830507
GI				



I



II

AB A photoreceptor for electrophotog. has a photosensitive layer contg. azo compd. having the general formula I (R = pyridyl, quinolyl, pyrimidyl; R1, R2 = H, lower alkyl, halo; m, n = 0, 1). These azo dyes provide high sensitivity and good charging behavior. The dyes are also stable to irradsn. and heating. Thus, the dye II was synthesized as in the following: Ph 2-hydroxy-3-naphthoate 5 g was refluxed with 2-aminopyridine 2 g in PhNO<sub>3</sub>. The obtained coupler component 2-hydroxy-3-(N-2-pyridyl)naphthamide 2.5 g, and a tetrazolium salt 2.8 g obtained by diazotization of 2,5-di-(p-aminophenyl)-1,3,5-oxadiazole, were dissolved in EtOH and added to dil. aq. NaOH, to obtain crude II as purplish black crystals. Yield was 89% after purifn. An Al-laminated polyester film was coated with a butylamine soln. contg. II 0.5 and polyester resin (Vylon 200; Toyobo Co. Ltd.) 0.3 part to form a charge generating layer. A charge transfer layer was formed by coating a PhCl soln. contg. 4-N,N-diethylaminobenzaldehyde N,N-diphenylhydrazone 10 and resin U-100 (Unitica Ltd.). Obtained photoreceptor when charged to 1020 V showed a sensitivity (lx-s for half decay of voltage) of 2.8.

IT 95470-14-7

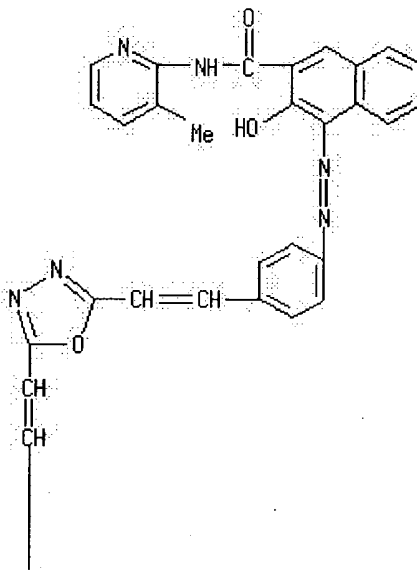
RL: USES (Uses)

(electrophotog. charge generating agent)

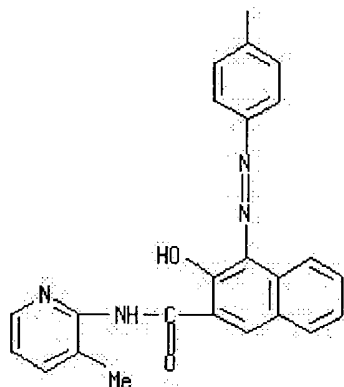
RN 95470-14-7 HCAPLUS

CN 2-Naphthalenecarboxamide, 4,4'-[1,3,4-oxadiazole-2,5-diylbis(2,1-ethenediyl-4,1-phenyleneazo)]bis[3-hydroxy-N-(3-methyl-2-pyridinyl)- (9CI)  
(CA INDEX NAME)

PAGE 1-A



PAGE 2-A



L12 ANSWER 152 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text	Chemical References
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ACCESSION NUMBER: 1976:123424 HCAPLUS  
 DOCUMENT NUMBER: 84:123424  
 TITLE: 4,4'-Stilbenebis-pyridooxazoles and related  
 fluorescent whiteners and polymeric compositions  
 whitened with them  
 INVENTOR(S): Crouse, Nathan N.  
 PATENT ASSIGNEE(S): Sterling Drug Inc., USA  
 SOURCE: U.S., 13 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3935195	A	19760127	US 1971-162620	19710714
US 3928228	A	19751223	US 1969-820005	19690428

CA 982565	A1	19760127	CA 1970-81105	19700424
BE 749630	A	19701028	BE 1970-749630	19700428
CH 523885	A	19720615	CH 1970-523885	19700428
CH 523908	A	19720615	CH 1970-523908	19700428
CH 550818	A	19740628	CH 1971-13476	19700428
JP 48041005	B4	19731204	JP 1972-48678	19720518
CA 982566	A2	19760127	CA 1975-229517	19750617
CA 982590	A2	19760127	CA 1975-229491	19750617
PRIORITY APPLN. INFO.:			US 1969-820005	19690428
			CA 1970-81105	19700424

GI For diagram(s), see printed CA Issue.

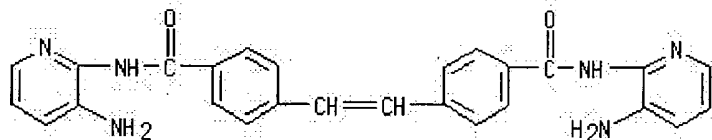
AB Fluorescent whiteners (I, X = O, S, NH, NCH<sub>2</sub>CH<sub>2</sub>CN; A = pyridine residue) were prepd. and used to whiten polyester fibers. Thus, 4-HO<sub>2</sub>CC<sub>6</sub>H<sub>4</sub>CH:CHC<sub>6</sub>H<sub>4</sub>CO<sub>2</sub>H-4 [100-31-2] was added to polyphosphoric acid at 100°, the mixt. heated to 125°, 3-amino-4-pyridinol hydrochloride [58671-00-4] was added, the mixt. heated to 200° for 3.5 hr, and worked up to give I (X = O, orientation is oxazolo[4,5-c]pyridine) [29344-24-9]. The other I were similarly prepd.

IT **34942-51-3P**

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(prepn. and cyclization of)

RN **34942-51-3** HCAPLUS

CN Benzamide, 4,4'-(1,2-ethenediyl)bis[N-(3-amino-2-pyridinyl)- (9CI) (CA INDEX NAME)



L12 ANSWER 153 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
Citing References

ACCESSION NUMBER: 1975:593949 HCAPLUS

DOCUMENT NUMBER: 83:193949

TITLE: New aromatic polyamides. I. Polyamides from 4,4'-benzophenonedicarboxylic acid dichloride

AUTHOR(S): Guidotti, V.; Johnston, N. J.

CORPORATE SOURCE: Langley Res. Cent., NASA, Hampton, VA, USA

SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1974), 15(1), 570-5  
CODEN: ACPPAY; ISSN: 0032-3934

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Thermogravimetric, thermochem., and soly. properties were detd. for 16-arom. polyamides made from 4,4'-benzophenonedicarbonyl chloride and diamines selected from the following 5 types: benzophenones, diphenylmethanes, diphenylsilyls, diarylsulfides, and compds. contg. 3 phenyl groups sepd. by methylene and/or carbonyl groups. Meta orientation in the amine moiety was very effective in decreasing glass temp. regardless of the nature of the flexible linking groups between the arom. rings. Diamines contg. meta and para linkages gave rise to polyamides with glass temps. closer to those from m,m'-isomers than to those originated by the p,p'-isomers. The dimethylsilyl group was the most effective linkage for lowering glass temp. An increase in the length of the repeat unit reduced glass temps. Nearly all of the polyamides had 2 addnl. regions of mech. loss below the glass temp.

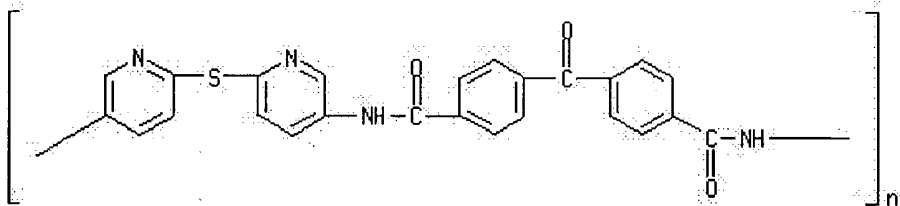
IT 57360-78-8

RL: USES (Uses)

(thermogravimetric, thermomech., and soly. properties of)

RN 57360-78-8 HCAPLUS

CN Poly(5,2-pyridinediylthio-2,5-pyridinediyliminocarbonyl-1,4-phenylenecarbonyl-1,4-phenylenecarbonylimino) (9CI) (CA INDEX NAME)



L12 ANSWER 154 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full  
Text

ACCESSION NUMBER: 1972:35235 HCAPLUS

DOCUMENT NUMBER: 76:35235

TITLE: Fluorescent whitening, heterocyclic-substituted stilbenes

INVENTOR(S): Crounse, Nathan N.

PATENT ASSIGNEE(S): Sterling Drug Inc.

SOURCE: Fr., 39 pp.

CODEN: FRXXAK

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2046545	A5	19710305	FR 1970-15253	19700427
US 3928228	A	19751223	US 1969-820005	19690428
CA 982565	A1	19760127	CA 1970-81105	19700424
BE 749630	A	19701028	BE 1970-749630	19700428
CH 523885	A	19720615	CH 1970-523885	19700428
CH 523908	A	19720615	CH 1970-523908	19700428
CH 550818	A	19740628	CH 1971-13476	19700428
JP 48041005	B4	19731204	JP 1972-48678	19720518
CA 982566	A2	19760127	CA 1975-229517	19750617
CA 982590	A2	19760127	CA 1975-229491	19750617
PRIORITY APPLN. INFO.:			US 1969-820005	19690428
			CA 1970-81105	19700424

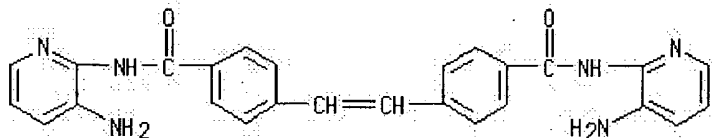
AB Oxazolo-, thiazolo-, and imidazopyridines (I, A represents a pyridine ring, X = O, S, NH, NCH<sub>2</sub>CH<sub>2</sub>CN), stable to heat and light and useful for fluorescent whitening poly(ethylene terephthalate) spin melts, were prepd. by cyclization of 4,4'-stilbenebiscarboxamides. For example, a mixt. of polyphosphoric acid and 4,4'-stilbenedicarboxylic acid was heated to 125.deg., 3-amino-4-pyridinol-HCl added, heated 3 hr at 200.deg., and the mixt. quenched in water to give 4,4'-bis(2-oxazolo[4,5-c]pyridyl)stilbene (II) [29344-24-9]. Five other I were similarly prepd. In an alternate method of prepn., 3-amino-2-chloropyridine was treated with p-MeC<sub>6</sub>H<sub>4</sub>COCl to give the amide which was heated in polyphosphoric acid to give 2-(p-tolyl)oxazolo[5,4-b]pyridine (III); heating III with S at 218-31.deg. for 10.5 hr gave 4,4'-bis(2-oxazolo[5,4-b]pyridyl)stilbene [27336-31-8].

IT 34942-51-3P

RL: IMF (Industrial manufacture); PREP (Preparation)  
(prepn. of)

RN 34942-51-3 HCAPLUS

CN Benzamide, 4,4'-(1,2-ethenediyl)bis[N-(3-amino-2-pyridinyl)- (9CI) (CA  
INDEX NAME)



L12 ANSWER 155 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text      Citations  
References

ACCESSION NUMBER: 1971:499260 HCAPLUS  
DOCUMENT NUMBER: 75:99260  
TITLE: Fluorescent whiteners based on heterocyclic-substituted stilbenes  
INVENTOR(S): Crounse, Nathan N.  
PATENT ASSIGNEE(S): Sterling Drug Inc.  
SOURCE: Ger. Offen., 43 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 3  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2020817	A	19710603	DE 1970-2020817	19700428
US 3928228	A	19751223	US 1969-820005	19690428
CA 982565	A1	19760127	CA 1970-81105	19700424
BE 749630	A	19701028	BE 1970-749630	19700428
CH 523885	A	19720615	CH 1970-523885	19700428
CH 523908	A	19720615	CH 1970-523908	19700428
CH 550818	A	19740628	CH 1971-13476	19700428
JP 48041005	B4	19731204	JP 1972-48678	19720518
CA 982566	A2	19760127	CA 1975-229517	19750617
CA 982590	A2	19760127	CA 1975-229491	19750617
PRIORITY APPLN. INFO.:			US 1969-820005	19690428
			CA 1970-81105	19700424

GI For diagram(s), see printed CA Issue.

AB Three 4,4'-bis(2-oxazolopyridinyl)-stilbenes (I, one of X, Y, and Z = N, others are CH) and two 4,4'-bis(imidazopyridin-2-yl)stilbenes (II, R = H or CH<sub>2</sub>CH<sub>2</sub>CN), heat- and light-stable fluorescent whiteners, esp. for poly(ethylene terephthalate), were prepd. For example, a mixt. of polyphosphoric acid and 4,4'-stilbenedicarboxylic acid was heated 3.5 hr with 3-amino-4-pyridinol-HCl at 200° to give 4,4'-bis(2-oxazolo[4,5-c]pyridinyl)stilbene (I, X = Z = CH, Y = N). Similarly prepd. was 4,4'-bis(2-oxazolo[5,4-b]pyridinyl)stilbene (I, X = N, Y, = Z = CH). Reaction of di-K 4,4'-stilbenedicarboxylate (III) with SOCl<sub>2</sub> in PhCl gave the diacid chloride, which was treated with 2-amino-3-pyridinol in PhCl-C<sub>5</sub>H<sub>5</sub>N and then with aq. Na<sub>2</sub>CO<sub>3</sub> to form N,N'-bis(3-hydroxy-2-pyridinyl)-4,4'-stilbenedicarboxamide (IV); IV was cyclized by heating with p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>H in C<sub>6</sub>H<sub>3</sub>Cl<sub>3</sub> to form 4,4'-bis(2-oxazolo[4,5-b]pyridinyl)stilbene (I, X = Y = CH, Z = N). 4,4'-Bis(3H-imidazo[4,5-b]pyridin-2-yl)stilbene (II, R = H) (V) was similarly prepd. from III and 2,3-diaminopyridine. Reaction of V with acrylonitrile gave

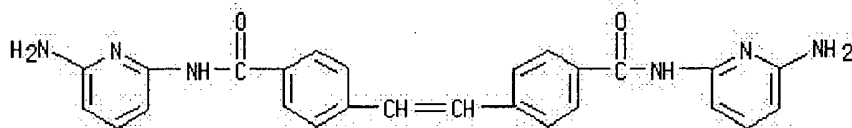
4,4'-bis[3-(2-cyanoethyl)-3H-imidazo[4,5-b]pyridin-2-yl]stilbene (II, R = CH<sub>2</sub>CH<sub>2</sub>CN).

IT **33761-32-9P**

RL: IMF (Industrial manufacture); PREP (Preparation)  
(prepn. of)

RN 33761-32-9 HCAPLUS

CN 4,4'-Stilbenedicarboxamide, N,N'-bis(6-amino-2-pyridyl)- (8CI) (CA INDEX NAME)



L12 ANSWER 156 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
References

ACCESSION NUMBER: 1969:449810 HCAPLUS

DOCUMENT NUMBER: 71:49810

TITLE: Syntheses and properties of 1H-pyrrolo[2,3-b]pyridines

AUTHOR(S): Herbert, R.; Wibberley, D. G.

CORPORATE SOURCE: Sch. Pharm., Sunderland Polytech., Sunderland, UK

SOURCE: Journal of the Chemical Society [Section] C: Organic  
(1969), (11), 1505-14  
CODEN: JSOOAX; ISSN: 0022-4952

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 71:49810

GI For diagram(s), see printed CA Issue.

AB Five different routes for the prepn. of 1H-pyrrolo[2,3-b]pyridines (I) were investigated. A no. of 2-, 3-, and 4-alkyl and -aryl substituted derivs. were prepd. by two of these methods which involved modifications of Madelung- and Fischer-syntheses of indoles. I undergo nitration, nitrosation, bromination, iodination, and reaction with Mannich bases predominantly at the 3-position although one example of nitration at the 2-position was also found. Bis[3-(1H-pyrrolo[2,3-b]pyridyl)]methanes are formed by reaction with aldehydes, and treatment of 2-phenyl-1H-pyrrolo[2,3-b]pyridine with nitrosobenzene yields 2-phenyl-3-phenylimino-3H-pyrrolo[2,3-b]pyridine. A further example of a deriv. of this isomeric 3H-system is 3-diazo-2-phenyl-3H-pyrrolo[2,3-b]pyridine which is formed from the corresponding amine by basification of the diazonium salt. 1-Substituted Grignard derivs. yield 3-iodo-compds. on treatment with H<sub>2</sub>O<sub>2</sub> but only 1-acyl derivs. with acyl chlorides. Treatment of 2-phenyl-1H-pyrrolo[2,3-b]pyridine with CHCl<sub>3</sub> and alkali caused ring-expansion to a 1,8-naphthyridine. A no. of unexpected products were isolated both in the syntheses of the 1H-pyrrolo[2,3-b]pyridines and in their reactions with electrophiles. Ir, N.M.R., and mass spectra were used to establish all structures.

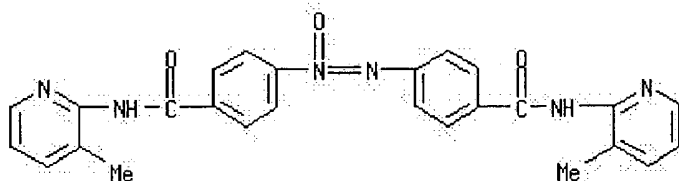
IT **23612-54-6P**

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)

RN 23612-54-6 HCAPLUS

CN Benzamide, 4,4'-azoxybis[N-(3-methyl-2-pyridyl)- (8CI) (CA INDEX NAME)





L12 ANSWER 157 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
References

ACCESSION NUMBER: 1969:57675 HCAPLUS  
DOCUMENT NUMBER: 70:57675  
TITLE: Substituted amino pyridines  
INVENTOR(S): Thiele, Kurt; Von Bebenburg, Walter  
PATENT ASSIGNEE(S): Deutsche Gold- und Silber-Scheideanstalt vorm. Roessler  
SOURCE: S. African, 35 pp.  
CODEN: SFXAB  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ZA 6702799		19680327	ZA	
DE 1670522			DE	
DE 1670523			DE	
FR 6877			FR	
GB 1191302			GB	
US 3481943		19690000	US	
US 3513171		19700000	US	
US 3712900		19730000	US	
US 3787429		19740000	US	

## PRIORITY APPLN. INFO.:

DE 19660512

GI For diagram(s), see printed CA Issue.

AB 2-Chloro-5-nitropyridine (I) (80 g.) was added gradually to 110 g. PhCH<sub>2</sub>NH<sub>2</sub> at 160°. After the exothermic reaction ceased, the mixt. was poured into H<sub>2</sub>O to give 82% 2-benzylamino-5-nitropyridine (II, R = R<sub>1</sub> = H, R<sub>2</sub> = Ph) (III), m. 133-4° (EtOH). 2-Amino-6-chloro-3-nitropyridine (IV) (69.6 g.) was added gradually to 172 g. PhCH<sub>2</sub>NH<sub>2</sub> at 90°, the mixt. stirred at 100° 30 min. after the reaction ceased and dissolved in 1 l. Me<sub>2</sub>CO, and H<sub>2</sub>O added to incipient turbidity to give 94% II (R = NH<sub>2</sub>, R<sub>1</sub> = H, R<sub>2</sub> = Ph), m. 132°. Similarly prep'd. and purified via its HCl salt was 81% dl-II (R = NH<sub>2</sub>, R<sub>1</sub> = Me, R<sub>2</sub> = Ph), m. 104-6°. A mixt. of 158 g. I, 108 g. 2-aminomethylpyridine, 1.5 l. iso-PROH, and 138 g. K<sub>2</sub>CO<sub>3</sub> was refluxed 7 hrs., cooled, and filtered, and the filtrate washed with H<sub>2</sub>O, dried, and evap'd. to give 86.7% II (R = R<sub>1</sub> = H, R<sub>2</sub> = 2-pyridyl), m. 156-7°. IV (80 g.) was added gradually to a mixt. of 80 g. m-F<sub>3</sub>CC<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>-NH<sub>2</sub>, 200 ml. PROH, and 36.5 g. K<sub>2</sub>CO<sub>3</sub> at 90° and the mixt. stirred 30 min. more and poured into H<sub>2</sub>O to ppt. 52% II (R = NH<sub>2</sub>, R<sub>1</sub> = H, R<sub>2</sub> = m-F<sub>3</sub>CC<sub>6</sub>H<sub>4</sub>), m. 105-8°. III (100 g.) and 30 g. Raney Ni in 500 ml. MeOH was hydrogenated at 50° 20 atm. to give 67% 2-benzylamino-5-aminopyridine (V, R = R<sub>1</sub> = R<sub>2</sub> = H, R<sub>3</sub> = Ph) (VI), b<sub>0.2</sub> 180-5°. Similarly prep'd. were the following V (R = H) [R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, % yield, m.p., b.p./mm., and m.p. of HCl salt (mono- or di-) given]: H, H, 2-pyridyl, 97, 100° (iso-PROH), 210-28°/0.7, -, NH<sub>2</sub>, H, Ph, 65, 80-90°, -, 217-18° (mono); NH<sub>2</sub>, H, m-F<sub>3</sub>CC<sub>6</sub>H<sub>4</sub>, -, -, -, 205° (di); NH<sub>2</sub>, dl-Me, Ph, 68, -, -, 160-70° (di)

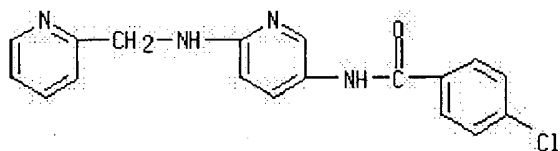
(MeOH-Et2O); NH2, H, o-ClC6H4, -, -, -, 218° (di) (decompn.) (aq. EtOH). All V (R = H) were rapidly oxidized in air. VI (20 g.) treated with 10 g. Ac2O below 40° gave 13 g. V (R = Ac, R1 = R2 = H, R3 = Ph), m. 140-1° (MeOH). ClCO2Et (9.6 ml.) was added dropwise to 20 g. VI in 8.5 ml. C5H5N and 100 ml. Me2CO, the mixt. stirred 30 min. at room temp. and concd., the residue in C6H6 washed with H2O, the org. phase dried, C6H6 evapd., and the residue in MeOH treated with HCl/iso-PrOH to give 11 g. V.HCl (R = EtO2C, R1 = R2 = H, R3 = Ph), m. 145-6° (MeOH-Et2O). Other V were prepd. similarly, using Me2CO or dioxane as solvent (R, R1, R2, R3, % yield, m.p., and m.p. HCl salt given): EtO2C, H, H, 2-pyridyl, 21.4, -, 230° (EtOH-MeOH); EtCO, H, H, 2-pyridyl, 37, 126-7° (iso-PrOH), -; p-ClC6H4-CO, H, H, 2-pyridyl, 44, 187° (MeOH), -; EtO2C, NH2, H, Ph, -, -, 208-9° (EtOH); PrO2C, NH2, H, Ph, -, -, 225-30° (EtOH); CH2:CHCO, NH2, H, Ph, -, -, 230-5°; EtO2C, NH2, H, m-F3CC6H4, -, -, 213°; Ph(CH2)2O2C, NH2, H, m-F3CC6H4, -, -, 150-60° (aq. MeOH); CH2:CHCO, NH2, H, m-F3CC6H4, 42, -, 230-5°; EtCO, NH2, dl-Me, Ph, 42, -, 205-10° (H2O); EtO2C, NH2, dl-Me, Ph, 24, -, 155-7° (dioxane-Et2O); iso-PrO2C, NH2, H, Ph, -, -, 225-30° (decompn.). V were also prepd. by treating the filtered hydrogenation mixts. directly with the resp. reagents, without isolating the intermediate 3-aminopyridines (R, R1, R2, R3, and m.p. of HCl salt given): EtO2C, NH2, H, p-MeOC6H4, 202° (MeOH); tert-BuCO, NH2, H, p-MeOC6H4, 225-6°; EtO2C, NH2, H, p-ClC6H4, 219-20°; Ac, NH2, H, p-ClC6H4, 260° (decompn.); EtO2C, NH2, H, o-ClC6H4, 171°; EtCO, NH2, H, o-ClC6H4, 242-4° (H2O); CH2:CHCO, NH2, H, o-ClC6H4, 230-2° (decompn.); EtO2C, NH2, H, 3,4-CH2O2C6H3, 213°; EtCO, NH2, H, 3,4-CH2O2C6H3, 241°; EtO2C, NH2, H, p-MeC6H4, 208-9° (H2O); EtCO, NH2, H, p-MeC6H4, 268-9°; EtO2C, NH2, H, 2,4-Me2C6H3, 216-17°; EtO2C, NH2, H, 2,5-Me2C6H3, 217-18°; EtO2C, NH2, H, 3,4-Me2C6H3, 221°; EtCO, NH2, H, 3,4-Me2C6H3, 250° (decompn.); EtO2C, NH2, H, p-iso-PrC6H4, 217-18° (EtOH); EtCO, NH2, H, p-iso-PrC6H4, 242-51°; MeO2C, iso-PrNH, H, Ph, 187-8° (iso-PrOH-Et2O). V are pharmaceuticals with antiphlogistic and analgesic effects.

IT **21630-54-6P**

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)

RN **21630-54-6** HCAPLUS

CN Benzamide, p-chloro-N-[6-[(2-pyridylmethyl)amino]-3-pyridyl]- (8CI) (CA INDEX NAME)



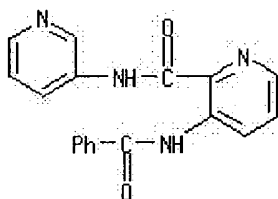
L12 ANSWER 158 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text **Chemical References**

ACCESSION NUMBER: 1965:463083 HCAPLUS  
DOCUMENT NUMBER: 63:63083  
ORIGINAL REFERENCE NO.: 63:11559b-c  
TITLE: Pyrido[3,2-d]pyrimidin-4(3H)-ones  
AUTHOR(S): Irwin, W. J.; Wibberley, D. G.  
CORPORATE SOURCE: Tech. Coll., Sunderland, UK  
SOURCE: Journal of the Chemical Society, Abstracts (1965),

(Aug.), 4240-6  
CODEN: JCSAAZ; ISSN: 0590-9791

DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 63:63083  
AB 2-Methyl- and 2-phenylpyrido[3,2-d][1,3]oxazin-4-ones are prepd. from 3-aminopicolinic acid. Treatment of these with primary amines yielded derivs. of 3-acetamido- and 3-benzamidopicolinamide, which were cyclized to give two series of 2,3-disubstituted pyrido[3,2-d]pyrimidin-4(3H)-ones.  
IT 3295-45-2, Picolinamide, 3-benzamido-N-3-pyridyl-  
(prepn. of)  
RN 3295-45-2 HCAPLUS  
CN Picolinamide, 3-benzamido-N-3-pyridyl- (7CI, 8CI) (CA INDEX NAME)



L12 ANSWER 159 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text References

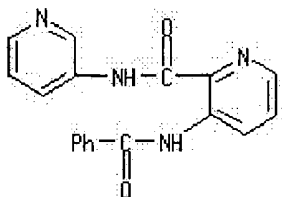
ACCESSION NUMBER: 1965:463082 HCAPLUS  
DOCUMENT NUMBER: 63:63082  
ORIGINAL REFERENCE NO.: 63:11558g-h,11559a-b  
TITLE: 2-Diethoxymethyl compounds in the 2-imidazoline and  $\Delta^2$ -tetrahydropyrimidine series  
AUTHOR(S): Baganz, Horst; Rabe, Siegfried; Repplinger, Joachim  
CORPORATE SOURCE: Tech. Univ., Berlin  
SOURCE: Chemische Berichte (1965), 98(8), 2572-5  
CODEN: CHBEAM; ISSN: 0009-2940  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
OTHER SOURCE(S): CASREACT 63:63082  
GI For diagram(s), see printed CA Issue.  
AB I (R = Bu) (II), I (R = PhCH<sub>2</sub>) (III), and IV were prepd. On acid hydrolysis the 2,4-dinitrophenyl-hydrazones of the aldehydes but not the free aldehydes could be isolated. (EtO)<sub>2</sub>CHCO<sub>2</sub>Et (V) (35.2 g.) and 23.2 g. BuNHCH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub> heated with 3 drops concd. HCl under a column with the continuous removal of the EtOH formed, and the residual mixt. heated then during 6 hrs. to 200° yielded 28.8 g. II, b0.1 75°, n<sub>25D</sub> 1.4569. II (2.3 g.) and 2.0 g. 2,4-(O<sub>2</sub>N)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>NHNH<sub>2</sub> (VI) in 5 cc. concd. H<sub>2</sub>SO<sub>4</sub> and 20 cc. 50% EtOH heated 3 hrs. on a water bath gave 2.7 g. 2,4-dinitrophenylhydrazone sulfate of 1-butyl-2-imidazoline-1-carboxaldehyde (VII), m. 238° (EtOH). V (35.2 g.) and 30.0 g. PhCH<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub> (VIII) gave similarly 35.2 g. III, b0.1 142°, n<sub>25D</sub> 1.4569; picrate m. 118° (EtOH). III (2.6 g.) and 2.0 g. VI in concd. HCl refluxed 5 hrs. gave 0.45 g. 2,4-dinitrophenylhydrazone hydrochloride of the 1-PhCH<sub>2</sub> analog of VII, m. 251° (aq. EtOH). V (44 g.) and 125 g. H<sub>2</sub>N(CH<sub>2</sub>)<sub>3</sub>NH<sub>2</sub> refluxed 72 hrs. gave 38 g. IV, b0.1 88°, n<sub>25D</sub> 1.4748. IV (5.0 g.) and 5.0 g. VI in 150 cc. EtOH and 50 cc. 20% HCl heated 3 hrs. on a water bath gave 7.2 g. 2,4-dinitrophenylhydrazone hydrochloride of  $\Delta^2$ -tetrahydropyrimidine-2-carboxaldehyde, m. 283° (aq. EtOH). III (13.1 g.) and 50 cc. 15% HCl refluxed 35 hrs. gave 74% CO<sub>2</sub> and 7.7 g. VIII.2HCl, m. 243° (aq. EtOH). II (11.4 g.) and 50 cc. 40% H<sub>2</sub>SO<sub>4</sub> refluxed 6 hrs. gave 62%

CO<sub>2</sub>, 11% CO, and 7.8% HCO<sub>2</sub>H. IV (5.0 g.) and 25% H<sub>2</sub>SO<sub>4</sub> heated 48 hrs. gave 41% CO<sub>2</sub> and 37% CO.

IT 3295-45-2, Picolinamide, 3-benzamido-N-3-pyridyl-  
(prepn. of)

RN 3295-45-2 HCAPLUS

CN Picolinamide, 3-benzamido-N-3-pyridyl- (7CI, 8CI) (CA INDEX NAME)



L12 ANSWER 160 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full  
Text

ACCESSION NUMBER: 1961:144175 HCAPLUS

DOCUMENT NUMBER: 55:144175

ORIGINAL REFERENCE NO.: 55:27306e-i, 27307a

TITLE: Reductive cleavage of 2,6-diacetyldiamino-2-butoxy-3,5'-azopyridines

AUTHOR(S): Melandri, Marcello; Vittorina, Gerosa; Buttini, Annibale

CORPORATE SOURCE: Soc. ital. prodotti Schering, Milan

SOURCE: Annali di Chimica (Rome, Italy) (1960), 50, 125-33  
CODEN: ANCRAI; ISSN: 0003-4592

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

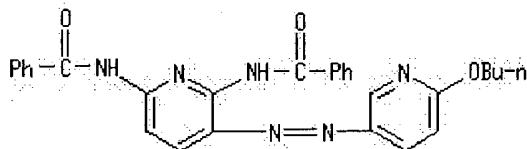
AB Attempts to prep. 2,6-diacetyldiamino-3-aminopyridines by the reductive cleavage of the azo linkage in the above cited structure gave rise to secondary reactions. The course of the reaction was influenced by the reducing agent, solvent, and acyl group. Treating 2,6-diamino-2'-butoxy-3,5'-azopyridine (I) with glacial AcOH gave yellowish-orange 2,6-diacetyldiamino-2'-butoxy-3,5'-azopyridine, m. 190-1° (decompn.). I and BzCl in C<sub>5</sub>H<sub>5</sub>N gave yellow 2,6-dibenzoyldiamino-2'-butoxy-3,5'-azopyridine (II), m. 170-1° (decompn.). I and maleic anhydride in C<sub>6</sub>H<sub>6</sub> afforded brown 2,6-dimaleyldiamino-2'-butoxy-3,5'-azopyridine, m. 145-7° (decompn.), and fusion of I with o-C<sub>6</sub>H<sub>4</sub>(CO)<sub>2</sub>O gave reddish-orange 2,6-diphthaloyldiamino-2'-butoxy-3,5'-azopyridine (III), m. 233-5°. A suspension of 0.01 mole III in 50 cc. of 15% HCl was heated on a H<sub>2</sub>O-bath while 5 g. pulverized Fe was added in small amts. Heating was terminated after the orange color of III disappeared and the reaction product was basified with 20% NaOH and the filtrate continuously extd. with Et<sub>2</sub>O to remove 2,5-BuO(H<sub>2</sub>N)C<sub>5</sub>H<sub>3</sub>N. Neutralizing the basic layer gave 2,6,3-(NH<sub>2</sub>)<sub>2</sub>(OH)C<sub>5</sub>H<sub>2</sub>N (IV) which changed rapidly to the quinone as indicated by its blue color. Filtering through a sintered disk and copious washing with H<sub>2</sub>O gave the quinone of IV, m. >300°. Reducing II gave 2-phenyl-5-benzoylamino-3H-pyrido[2,3-b]imidazole (V), m. 261-3° (70% EtOH), λ 227 and 331, ε 1610 and 930. V loses H<sub>2</sub>O of hydration at 115-20°. Heating V several hrs. at 180-90° caused crystal modification, m. 205-6°. During the redn. of V, its tendency to saponify at the amide linkage with the formation of the amine hydrochloride was avoided by interrupting the reaction at the opportune time and by filtering off V. It was purified by boiling in 5% NaOH to remove any Fe and its hydrate, followed by acidifying the filtrate and washing the ppt. with H<sub>2</sub>O. A suspension of 0.01 g.-mole III in 80 cc. glacial AcOH was heated 30 min.

on the H<sub>2</sub>O bath while adding Fe in small amts., the wt. of which corresponded to about half of III. Cooling and removing any excess Fe and its acetate was followed by pouring the filtrate into 100 cc. boiling H<sub>2</sub>O. Cooling gave 2-butoxy-5-phthaloylaminopyridine, m. 163-4° (several times from 95% EtOH). Evapg. the filtrate in vacuo, taking up the residue in dil. HCl, filtering, and neutralizing gave an unidentified product, m. 170°. Similar redn. of II gave V. Subjecting III to redn. with N<sub>2</sub>H<sub>4</sub>.H<sub>2</sub>O in the presence of 10% Pd-C gave phthalylhydrazide, m. 340-3°. II was recovered unchanged when treated similarly.

IT **123885-77-8**, Pyridine, 2,6-dibenzamido-6'-butoxy-3,3'-azodi-  
(prepn. of)

RN 123885-77-8 HCAPLUS

CN Pyridine, 2,6-dibenzamido-6'-butoxy-3,3'-azodi- (6CI) (CA INDEX NAME)



L12 ANSWER 161 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text **SEARCH**  
References

ACCESSION NUMBER: 1957:81498 HCAPLUS

DOCUMENT NUMBER: 51:81498

ORIGINAL REFERENCE NO.: 51:14738f-i,14739a-e

TITLE: Sulfur-containing pyridine derivatives. LIII. Smiles rearrangement in pyridine derivatives and syntheses of azaphenothiazine derivatives. 1

AUTHOR(S): Maki, Yoshifumi

CORPORATE SOURCE: Univ. Kyoto

SOURCE: Yakugaku Zasshi (1957), 77, 485-90

CODEN: YKKZAJ; ISSN: 0031-6903

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

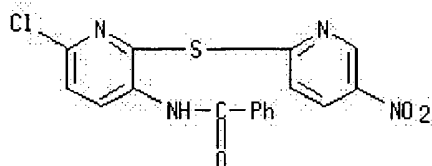
AB 6,2,3-Cl(HS)(H<sub>2</sub>N)C<sub>5</sub>H<sub>2</sub>N (0.5 g.), in 10 ml. MeOH contg. 0.3 g. KOH and 0.5 g. 2-ClC<sub>6</sub>H<sub>4</sub>NO<sub>2</sub> in a sealed tube heated 5 hrs. at 100°, the product concd., and recrystd. from MeOH gave 0.15 g. 6,2,3-Cl(2-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>S)(H<sub>2</sub>N)C<sub>5</sub>H<sub>2</sub>N (IX), cubes, m. 181°; 3-AcNH analog (X) of IX, m. 155°. X (0.12 g.) in 5 ml. dil. MeOH and 0.02 g. KOH treated with excess MeI, kept until the soln. turned neutral, the solvent removed, and the residue recrystd. from MeOH gave 0.08 g. 6,2,3-Cl-(MeS)(2-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>NAc)C<sub>5</sub>H<sub>2</sub>N, cubes, m. 162-3°. Heating of X 15 min. at 100° and the product recrystd. from MeOH gave 6,2,3-Cl(MeS)(2-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>NH)C<sub>5</sub>H<sub>2</sub>N, needles, m. 182-3°. 6,3,2-Cl(MeNH)(RS)C<sub>5</sub>H<sub>2</sub>N (R = 5-nitro-2-pyridyl) (0.2 g.) in dil. MeOH and 0.05 g. KOH refluxed 10 min., cooled, let stand with the excess MeI, the product concd., and recrystd. from MeOH gave 0.1 g. 6,2,3-Cl(MeS)(RMeN)C<sub>5</sub>H<sub>2</sub>N, cubes, m. 119°. 6,2,3-Cl(RS)(R<sub>1</sub>CONH)C<sub>5</sub>H<sub>2</sub>N (XI) (R<sub>1</sub> = Me) (XIa) m. 170-1°; XI (R<sub>1</sub> = Ph) m. 197-8°; XI (R<sub>1</sub> = p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>) m. 186-7°. XI (0.2 g.) in dil. MeOH and 0.05 g. KOH stirred, the soln. treated with the excess MeI and the product recrystd. from EtOH gave 0.2 g. 6,2,3-Cl(MeS)(RNH)C<sub>5</sub>H<sub>2</sub>N, m. 184°. XIa in EtOH contg. AcONa heated 20 min. and the product recrystd. from EtOH gave 6,2,3-Cl(MeS)(RACN)C<sub>5</sub>H<sub>2</sub>N, m. 151-2°. Similarly, 6,2,3-Cl(RSO<sub>2</sub>)(AcNH)C<sub>5</sub>H<sub>2</sub>N (XII) gave 6,2,3-Cl(MeSO<sub>2</sub>)(RNH)C<sub>5</sub>H<sub>2</sub>N (XIII), m. 212°. 6,2,3-Cl(MeS)(RNH)C<sub>5</sub>H<sub>2</sub>N (0.1 g.) in 10 ml. AcOH treated portionwise with 0.07 g. KMnO<sub>4</sub>, stirred 1.5 hrs., the excess KMnO<sub>4</sub> and MnO<sub>2</sub> decompd. with H<sub>2</sub>O<sub>2</sub>, and the product

recrystd. from dil. MeOH gave 0.1 g. XIII, m. 212°. XII (0.2 g.) in 5 ml. dil. MeOH and 0.05 g. KOH refluxed for formation of 6,2,3-Cl(HO3S)(RNH)C5H2N, the soln. poured into 5 ml. H2O contg. 0.45 g. HgCl2, the product filtered off, refluxed 1 hr. with 10 ml. EtOH and 10 ml. HCl, the EtOH removed and the residue extd. with AcOEt gave 0.05 g. 6,3-Cl(RNH)C5H3N (XIV), m. 264-5° (decompn.). 2,5-Cl(H2N)C5H3N (0.3 g.) and 0.37 g. 2,5-Cl(O2N)C5H3N heated 1 hr. at 120° gave 0.1 g. XIV, m. 264-5° (decompn.). 6,2,3-Cl(HS)(H2N)C5H2N (XVa) (0.5 g.) in MeOH contg. 0.2 g. KOH and 0.6 g. 1,3,4-Cl2(O2N)C6H3 in EtOH let stand 2 hrs., the soln. filtered, the filtrate concd., and the residue recrystd. from MeOH gave 0.3 g. 6,2,3-Cl[4,2-Cl-(O2N)C6H3S](H2N)C5H2N (XV), plates, m. 159°; 3-AcNH analog (XVI), needles, m. 147°. XVI gave a transition product in 2 hrs. at room temp.; this treated with MeI and the product recrystd. from AcOEt gave Cl2H9O2N3Cl2S, needles, m. 220°. XVa (0.3 g.) in MeOH contg. 0.15 g. KOH and 0.3 g. 2,3-Cl(O2N)C5H3N let stand 1 hr. and the product recrystd. from AcOEt gave 0.15 g. 6,2,3-Cl(R2S)(H2N)C5H2N (XVII) (R2 = 3-nitro-2-pyridyl), needles, m. 183°; 3-AcNH analog (XVIII) of XVII, needles, m. 173°. XVIII (0.1 g.) in 6-7 ml. EtOH and 0.02 g. KOH refluxed 15 min., the EtOH removed, the residue extd. with AcOEt, the AcOEt removed, and the residue recrystd. from EtOH gave 0.05 g. 7-chloro-10H-dipyrido[2,3-b; 3,2-e]-1,4-thiazine, needles, m. 249° (decompn.). Similarly, 0.5 g. XVa, MeOH contg. 0.35 g. KOH and 0.6 g. 4,3-Cl(O2N)C5H3N gave 0.6 g. 6,2,3-Cl(R3S)(H2N)C5H2N (XIX) (R3 = 3-nitro-4-pyridyl), m. 219° (decompn.); 3-AcNH analog (XX) of XIX, m. 230-1° (decompn.). Heat-transition of XX and treating the product with MeI gave 2-MeS deriv., Cl1H7O2N4ClS, needles, m. 228-9° (from dioxane.). XVa (0.5 g.) in 3 ml. C5H5N, 2 ml. H2O, and 3 ml. MeOH treated with 0.62 g. 1,2,4-Cl(O2N)2C6H3 in MeOH, H2O added, the ppt. filtered off, and recrystd. from MeOH gave 0.6 g. 6,2,3-Cl[2,4-(O2N)2C6H3S](H2N)C5H2N (XXI), needles, m. 193-4°; 3-AcNH analog (XXII) of XXI, plates, m. 204°. XXI and XXII yielded a transition product, Cl2H9O4N4ClS, needles, m. 212°. Me2CO (50 ml.), 0.3 g. KOH, and 10 ml. 95% EtOH while refluxing, treated with 1 g. XXII, refluxed 15 min., the solvent removed, and the residue recrystd. from EtOH gave 0.5 g. 2-chloro-8-nitro-5H-benzo[b]pyrido[3,2-e]-1,4-thiazine (XXIII), needles, m. 225°. XVa (0.5 g.) in 5 ml. EtOH treated with 0.8 g picryl chloride, the product filtered off, and recrystd from AcOEt gave 0.2 g. 6,8-di-NO2 analog of XXIII, dark purple needles, m. 260° (decompn.).

IT 101439-38-7, Pyridine, 3-benzamido-6-chloro-5'-nitro-2,2'-thiodi- (prepn. of)

RN 101439-38-7 HCAPLUS

CN Pyridine, 3-benzamido-6-chloro-5'-nitro-2,2'-thiodi- (6CI) (CA INDEX NAME)



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Full  
Text

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References

ACCESSION NUMBER: 1957:25524 HCAPLUS  
DOCUMENT NUMBER: 51:25524  
ORIGINAL REFERENCE NO.: 51:5068c-i,5069a-d

TITLE: Search for trypanocides. III. Analogs of suramin  
 AUTHOR(S): Adams, A.; Ashley, J. N.; Bader, H.  
 CORPORATE SOURCE: May & Baker Ltd., Dagenham, UK  
 SOURCE: Journal of the Chemical Society, Abstracts (1956)  
 3739-44  
 CODEN: JCSAAZ; ISSN: 0590-9791  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable

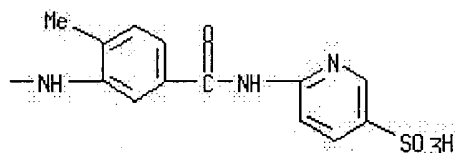
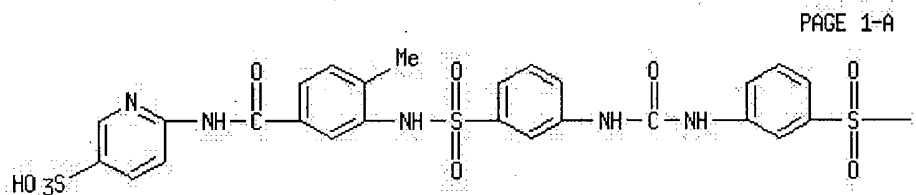
AB cf. C.A. 51, 4375i. Some symmetrical ureas which were based on the structure of suramin (I) but contained thiazol-2-yl, 2-pyridyl, 5-sulfo-2-pyridyl, and 4-carboxy-3-hydroxyphenyl groups instead of the naphthalenetrisulfonic acid group were synthesized. All of the compds. were inactive against Trypanosoma congolense and T. rhodesiense infections in mice. 4-Methyl-3-nitrobenzoyl chloride (II) (21 g.) added slowly to a cooled soln. of 10.5 g. 2-aminothiazole in C<sub>5</sub>H<sub>5</sub>N, then heated 10 min. on the steam bath, and purified gave 24.3 g. 2-(4-methyl-3-nitrobenzamido)thiazole (III), plates, m. 192° (from alc.). 4-Aminosalicylic acid (IV) (153 g.) and 100 g. II in Me<sub>2</sub>CO refluxed 1 hr. gave 146 g. 4-(4-methyl-3-nitrobenzamido) salicylic acid (V), white needles, m. 264-5° (decompn.), violet color with FeCl<sub>3</sub>, slightly sol. in hot 2N Na<sub>2</sub>CO<sub>3</sub> from which the Na salt crystd. in fine needles, m. above 300°. A suspension of 105.2 g. III in 2 l. AcOH was hydrogenated at room temp. and atm. pressure in the presence of Adams catalyst during 20 hrs. to give 76.8 g. 2-(3-amino-4-methylbenzamido)thiazole (VI), needles, m. 208°. m-Nitrobenzoyl chloride (VII) and VI similarly yielded 94% 2-(4-methyl-3-m-nitrobenzamido)thiazole (VIIa), m. 283-5° (from aq. C<sub>5</sub>H<sub>5</sub>N). p-(3-Amino-4-methylbenzamido)salicylic acid (VIII) (143 g.) and 93 g. VII refluxed 3 hrs. in Me<sub>2</sub>CO and the product stirred 1 hr. with 2N NaOH and kept overnight, the mixt. filtered, the filtrate dild. with alc. and acidified gave 108 g. 4-(4-methyl-3-m-nitrobenzamido)benzamido)salicylic acid, prisms, m. 271-2° (decompn.). 2-(3-Aminobenzamido-4-methylbenzamido)thiazole (IX) (11.6 g.) in AcOH treated with 11.6 g. NaOAc.3H<sub>2</sub>O in H<sub>2</sub>O, then a slow stream of COCl<sub>2</sub> passed in, and after 0.5 hr. the mixt. poured into H<sub>2</sub>O and kept overnight, the product dissolved in C<sub>5</sub>H<sub>5</sub>N, refluxed with C, and crystd. gave 6.8 g. 1,3-bis(3-m-benzamido-4-methylbenzamido)urea (X), m. 305-7° (from aq. C<sub>5</sub>H<sub>5</sub>N or aq. AcOH). m-Nitrobenzenesulfonyl chloride (28.5 g.) heated 1 hr. with 30 g. VI in C<sub>5</sub>H<sub>5</sub>N yielded 2-(4-methyl-3-m-nitrobenzenesulfonamidobenzamido)thiazole, needles, m. 215-17°. The following compds. were prepd. by methods similar to those recorded above. Analogs, 3,4-RNHXC<sub>6</sub>H<sub>3</sub>(NO<sub>2</sub>)Me, of IV were prepd. (substituents at X and R, crystn. form, % yield, and m.p. given): CO, 2-pyridyl, plates, 96, 152-3°; CO, 5-sulfo-2-pyridyl, needles, 78, 316° (decompn.). Analogs, 3,4-RNHXC<sub>6</sub>H<sub>3</sub>(NH<sub>2</sub>)Me, of VI were prepd. (substituents X and R, crystn. form, % yield, and m.p. given): CO, 2-pyridyl, rectangular prisms, 64, 182.5-3.0°; CO, 5-sulfo-2-pyridyl, needles, 70, 306°; CO, 4-carboxy-3-hydroxyphenyl, fawn prisms, 91, 251°. Analogs, m-ZXC<sub>6</sub>H<sub>4</sub>NO<sub>2</sub> (Z = 2,5-Me(RNHCO)C<sub>6</sub>H<sub>3</sub>NH), of VIIa were prepd. (substituents X and R, crystn. state, % yield, and m.p. given): CO, 2-pyridyl, needles, 90, 228.5°; SO<sub>2</sub>, 2-pyridyl, yellow prisms, 90, 192-3°; CO, 5-sulfo-2-pyridyl, colorless, 74, 312°; SO<sub>2</sub>, 5-sulfo-2-pyridyl, plates, 44, 223°. The amino-amide analogs, m-ZXC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>, of IX were prepd. (substituents X and R, crystn. state, % yield, and m.p. given): CO, thiazol-2-yl, needles, 90, 270.0-70.5°; SO<sub>2</sub>, 2-thiazolyl, fawn prisms, 94, 287-9°; CO, 2-pyridyl, needles, 90, 217°; SO<sub>2</sub>, 2-pyridyl, needles, 80, 206-7°; CO, 5-sulfo-2-pyridyl, cream-colored, 74, 287°; SO<sub>2</sub>, 5-sulfo-2-pyridyl, colorless, 83, 240-50°; CO, 4-carboxy-3-hydroxyphenyl, fawn prisms, 50, 243-4°. The analogs, (m-ZXC<sub>6</sub>H<sub>4</sub>NH)<sub>2</sub>CO, of X were prepd.

(substituents X and R, crystn. state, % yield, and m.p. given): SO<sub>2</sub>, 2-thiazolyl, yellow prisms, 70, 240-5°; CO, 2-pyridyl, needles, 53, 266°; SO<sub>2</sub>, 2-pyridyl, cream-colored, 60, 220°; CO, 5-sulfo-2-pyridyl, cream-colored, 91, 300° (decompn.); SO<sub>2</sub>, 5-sulfo-2-pyridyl, cream-colored, 84, slowly darkens above 295°; CO, 4-carboxy-3-hydroxyphenyl, pale brown, 65, 250-3°. II (15.5 g.) shaken 1 hr. with 11.9 g. IV in 200 cc. 3% aq. NaOH, the solid filtered off, washed with H<sub>2</sub>O, and dried, then stirred 10 min. with 50 cc. N NaOH, and AcOH added gave 2.9 g. 4-methyl-3-nitrobenzoic acid (XI), m. 190°. The residue gave 5.9 g. solids which were recrystd. to give O,N-bis(4-methyl-3-nitrobenzoyl)-m-aminophenol (XII), m. 167-8°, then resolidified and rem. 191°, gave no color with FeCl<sub>3</sub>, did not couple with β-naphthol, or decomp. aq. Na<sub>2</sub>CO<sub>2</sub>. The filtrate from the original reaction was acidified and afforded 7.7 g. of the salt of IV and 4-methyl-3-nitrobenzoic acid (XIII), prisms, m. 165° (decompn.), acid to litmus, liberated CO<sub>2</sub> from aq. NaHCO<sub>3</sub>, violet color with FeCl<sub>3</sub>, and red after diazotization and coupling with β-naphthol. Na 4-aminosalicylate (XIV) (2.11 g.) in 10 cc. H<sub>2</sub>O added to 1.81 g. 4-methyl-3-nitrobenzoic acid in 10 cc. N NaOH, and the mixt. acidified gave 3.2 g. XIII (from PhMe). XIV dihydrate (10 g.) in 2N NaOH and Me<sub>2</sub>CO treated with COCl<sub>2</sub> as above gave 83% 1,3-bis(3-hydroxy-4-carboxyphenyl)urea. Similarly the Na salt of 4-(3-amino-4-methylbenzamido)salicylic acid gave the analogous urea in 80% yield, needles, m. 289-90° (decompn.).

IT 108625-65-6, 3-Pyridinesulfonic acid, 6,6'-(ureylenebis[m-phenylenesulfonylimino(4-methyl-m-phenylene)carbonylimino])di-  
(prepn. of)

RN 108625-65-6 HCAPLUS

CN 3-Pyridinesulfonic acid, 6,6'-(ureylenebis[m-phenylenesulfonylimino(4-methyl-m-phenylene)carbonylimino])di- (6CI) (CA INDEX NAME)



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COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

782.92

1260.41

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-113.40

-113.40

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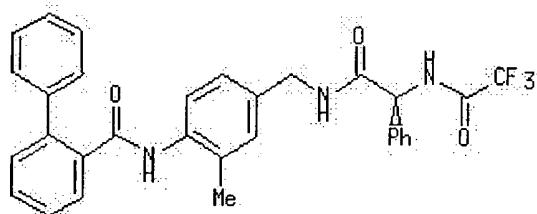
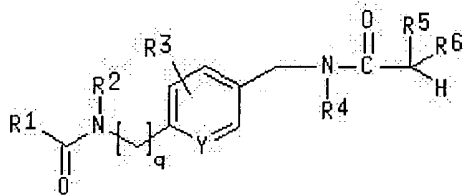
Full Text	Chemical References
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ACCESSION NUMBER: 2004:550938 HCAPLUS  
 DOCUMENT NUMBER: 141:106380  
 TITLE: Preparation of amide-substituted (hetero)aryl derivatives as inhibitors of microsomal triglyceride transfer protein (MTP) and apolipoprotein B (Apo B) secretion  
 INVENTOR(S): Bertinato, Peter; Maddux, Todd Michael  
 PATENT ASSIGNEE(S): Pfizer Products Inc., USA  
 SOURCE: PCT Int. Appl., 80 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>WO 2004056775</u>	A1	20040708	<u>WO 2003-IB5982</u>	20031210
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

<u>US 2004132779</u>	A1	20040708	<u>US 2003-742199</u>	20031219
<u>PRIORITY APPLN. INFO.:</u>			<u>US 2002-435378P</u>	P 20021220

OTHER SOURCE(S): MARPAT 141:106380  
 GI



AB Title compds. I [R1 = substituted (hetero)aryl; R2 = H, (cyclo)alkyl, acyl, etc.; q = 0-1; R3 = H, halo, alkyl, haloalkyl, etc.; Y = substituted alkyl, N; R4 = H, (cyclo)alkyl, acyl, etc.; R5 = alkyl, Ph, heteroaryl; R6 = H, alkyl, etc.] are prepd. For instance, 4'-trifluoromethylbiphenyl-2-carboxylic acid N-(5-aminomethyl-3-methylpyridin-2-yl)amide (prepn. given) is coupled to (S)-N-(Boc)phenylglycine (CH<sub>2</sub>Cl<sub>2</sub>, DCC, i-Pr<sub>2</sub>NEt) and subsequently treated with TFA/PyBOP/i-Pr<sub>2</sub>NEt to give II. I are inhibitors of microsomal triglyceride transfer protein (MTP) and/or apolipoprotein B (Apo B) secretion; they are useful for the treatment of obesity and related diseases, as well as prevention and treatment of atherosclerosis and its clin. sequelae, for lowering serum lipids and in the prevention and treatment of related diseases.

IT **719299-78-2P**

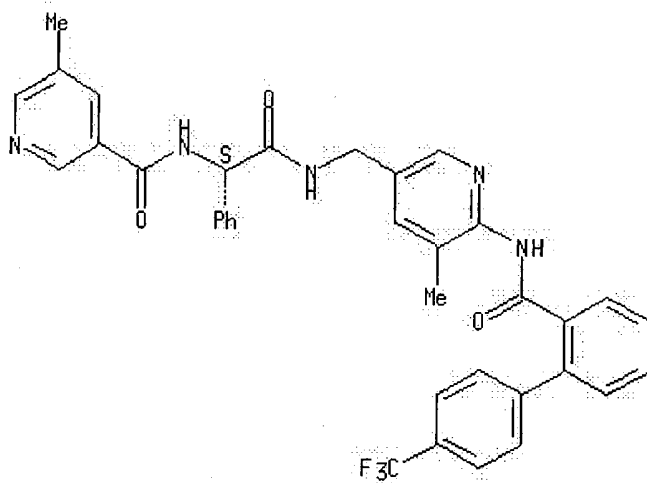
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of amide-substituted (hetero)aryl'derivs. as inhibitors of microsomal triglyceride transfer protein (MTP) and apolipoprotein B (Apo B) secretion)

RN **719299-78-2** HCAPLUS

CN 3-Pyridinecarboxamide, 5-methyl-N-[(1S)-2-[[[5-methyl-6-[[[4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]carbonyl]amino]-3-pyridinyl]methyl]amino]-2-oxo-1-phenylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

2

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text References

ACCESSION NUMBER:

2004:546481 HCAPLUS

DOCUMENT NUMBER:

141:106375

TITLE:

Preparation of amide-substituted (hetero)aryl derivatives as inhibitors of microsomal triglyceride transfer protein (MTP) and apolipoprotein B (Apo B) secretion

INVENTOR(S):

Bertinato, Peter; Bronk, Brian Scott; Cheng, Hengmiao; Chang, George; Cole, Bridget McCarthy; Li, Jin; Ruggeri, Roger Benjamin

PATENT ASSIGNEE(S):

Pfizer Products Inc., USA

SOURCE:

PCT Int. Appl., 90 pp.

h

eb c

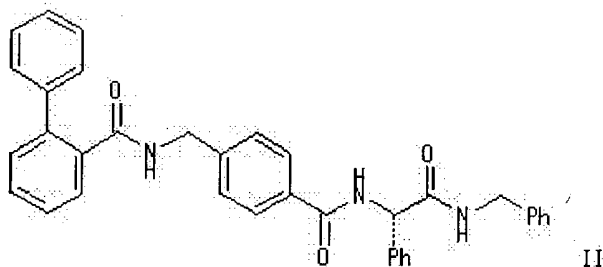
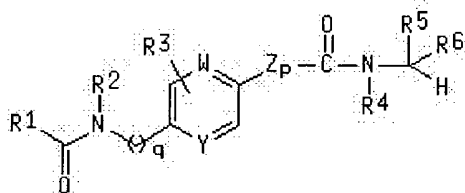
g cg b

cg

eb

CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004056777	A1	20040708	WO 2003-IB5809	20031208
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004132745	A1	20040708	US 2003-742197	20031219
PRIORITY APPLN. INFO.:			US 2002-435377P	P 20021220
OTHER SOURCE(S):		MARPAT 141:106375		
GI				



AB Title compds. I [R1 = substituted (hetero)aryl; R2 = H, (cyclo)alkyl, acyl, etc.; p, q = 0-1; R3 = H, halo, alkyl, haloalkyl, etc.; Y, W = substituted alkyl, N, etc.; Z = SCH2, CH2, OCH2; R4 = H, (cyclo)alkyl, acyl, etc.; R5 = alkyl, Ph, heteroaryl; R6 = H, alkyl, etc.] are prepd. For instance, 4-[[[4'-trifluoromethylbiphenyl-2-carbonyl)amino]methyl]benzoic acid Me ester (prepn. given) is sapond. and coupled to (S)-N-benzyl-2-amino-2-phenylacetamide hydrochloride. (CH2Cl2, i-Pr2NEt, PyBOP) to give II. I are inhibitors of microsomal triglyceride transfer protein (MTP) and/or apolipoprotein B (Apo B) secretion; they are useful for the treatment of obesity and related diseases, as well as prevention and treatment of atherosclerosis and its clin. sequelae, for lowering serum lipids and in the prevention and treatment of related diseases.

IT 720682-98-4P

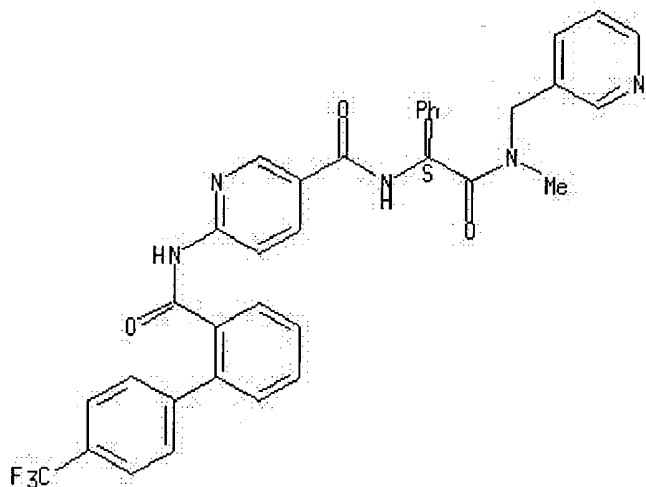
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of amide-substituted (hetero)aryl derivs. as inhibitors of microsomal triglyceride transfer protein (MTP) and apolipoprotein B (Apo B) secretion)

RN 720682-98-4 HCAPLUS

CN 3-Pyridinecarboxamide, N-[(1S)-2-[methyl(3-pyridinylmethyl)amino]-2-oxo-1-phenylethyl]-6-[[[4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]carbonyl]amino]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 3 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text [View References](#)

ACCESSION NUMBER: 2004:546480 HCAPLUS  
DOCUMENT NUMBER: 141:89019  
TITLE: Substituted biphenyl-4-carboxylic acid arylamide analogues as VR1 receptors modulators  
INVENTOR(S): Bakthavatchalam, Rajagopal; Blum, Charles A.; Brielmann, Harry; Darrow, James W.; De Lombaert, Stephane; Yoon, Taeyoung; Zheng, Xiaozhang  
PATENT ASSIGNEE(S): Neurogen Corporation, USA  
SOURCE: PCT Int. Appl., 170 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004056774	A2	20040708	WO 2003-US40878	20031219
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY,				

KG, KZ, MD, RU  
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE,  
 BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU,  
 MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN,  
 GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

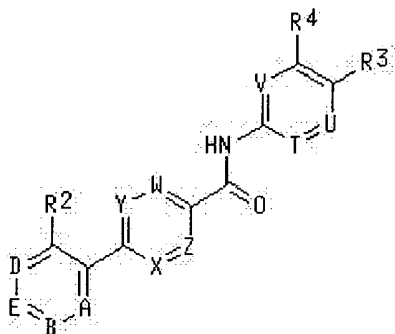
US 2002-435118P

P 20021219

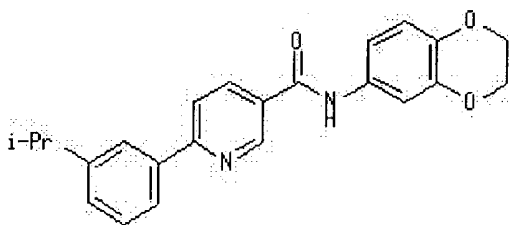
OTHER SOURCE(S):

MARPAT 141:89019

GI



I



II

AB The title compds. [such as I; A, B, D, E, W, X, Y, Z = CR1, N; T, U, V = CR8, N; R1 = halo, CN, NO2, etc.; R2 = NO2, CN, NHOH, etc.; R3, R4 = H, halo, alkyl, etc.; R8 = H, halo, OH, etc.] which are capable of modulating capsaicin receptor activity (biol. data given), are provided. E.g., the nicotinamide II was prepd. starting from 3-isopropylphenylboronic acid, Me 6-chloronicotinate and 2,3-dihydrobenzo[1,4]dioxin-6-ylamine. Such ligands may be used to modulate receptor activity in vivo or in vitro, and are particularly useful in the treatment of pain and other conditions assocd. with receptor activation in humans, domesticated companion animals and livestock animals. Pharmaceutical compns. and methods for treating such disorders are provided, as are methods for using such ligands for receptor localization studies.

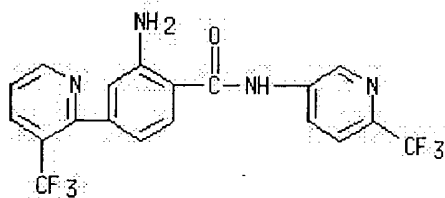
IT **717111-52-9P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of substituted biphenyl-4-carboxylic acid arylamide analogs as VR1 receptors modulators for treating pain assocd. with various conditions)

RN **717111-52-9** HCAPLUS

CN Benzamide, 2-amino-4-[3-(trifluoromethyl)-2-pyridinyl]-N-[6-(trifluoromethyl)-3-pyridinyl]- (9CI) (CA INDEX NAME)

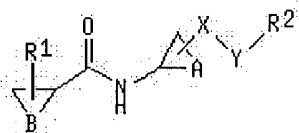


L12 ANSWER 4 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

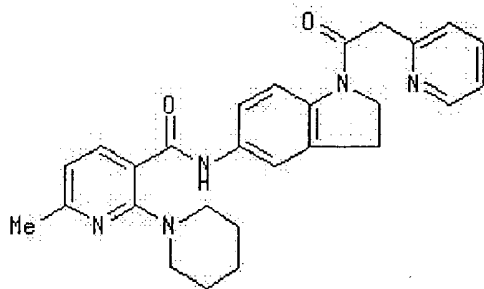
Full  
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References

ACCESSION NUMBER: 2004:390239 HCAPLUS  
DOCUMENT NUMBER: 140:406743  
TITLE: Preparation of aryl and heteroaryl amides, in particular benzamides and pyridinyl amides, as apolipoprotein B (Apo B) secretion inhibitors  
INVENTOR(S): Inoue, Yoshikazu; Terasawa, Takeshi; Takasugi, Hisashi; Nagayoshi, Akira; Ueshima, Koji; Sawada, Masae; Furukawa, Yoshiro; Mikami, Masafumi; Hinoue, Kazumasa; Fukumoto, Daisuke  
PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd., Japan; Daiso Co., Ltd.; et al.  
SOURCE: PCT Int. Appl., 331 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004039795	A2	20040513	WO 2003-JP13683	20031027
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG US 2004133008 A1 20040708 US 2003-694091 20031028 PRIORITY APPLN. INFO.: AU 2002-952331 A 20021029 AU 2003-902622 A 20030527 OTHER SOURCE(S): MARPAT 140:406743 GI				



I



II

AB Title compds. I [wherein R1 = H, lower alk/en/yl, halo(lower)alkyl, cyclo(lower)alkyl, lower alkoxy, lower alkylthio, acyl, NH2 and derivs., (un)substituted aryl; R2 = H, (un)substituted hetero/aryl; X = a bond or bivalent residue derived from piperazine; Y is -(A1)<sub>n</sub>-(A2)<sub>m</sub>-; A1 = O, NH, CO, NHCO, CONH, CH2CONH, etc.; A2 = (un)substituted lower alkylene, n and m = independently 0 or 1; A = bivalent residue derived from hetero/arene; B = bivalent residue derived from (un)substituted hetero/arene; and their salts] were prepd. as inhibitors of apolipoprotein B (Apo B) secretion, and as a medicament for prophylactic and treatment of diseases or conditions resulting from elevated circulating levels of Apo B. For example, II was prepd. by acylation of N-(2,3-dihydro-1H-indol-5-yl)-6-methyl-2-(1-piperidinyl)nicotinamide (prepn. given) with 2-pyridinyl acetic acid dihydrochloride. N-[4-[[2-(6-Amino-2-pyridinyl)ethyl]amino]phenyl]-4-chloro-2-(dimethylamino)benzamide (III) displayed 85.9% inhibition of Apo B secretion at 10<sup>-8</sup> M. III, at a dose of 0.32 mg/kg lowered lipid levels in ddY-mice by 52% after 2 h. I are useful as hypolipemic, antidiabetic, and cardiovascular agents.

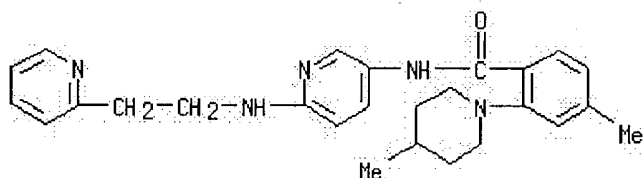
IT 689151-32-4P, 4-Methyl-2-(4-methyl-1-piperidinyl)-N-[6-[[2-(2-pyridinyl)ethyl]amino]-3-pyridinyl]benzamide

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(Apo B inhibitor; prepn. of amides as apolipoprotein B secretion inhibitors)

RN 689151-32-4 HCAPLUS

CN Benzamide, 4-methyl-2-(4-methyl-1-piperidinyl)-N-[6-[[2-(2-pyridinyl)ethyl]amino]-3-pyridinyl]- (9CI) (CA INDEX NAME)



L12 ANSWER 5 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
References

ACCESSION NUMBER: 2004:368213 HCAPLUS

DOCUMENT NUMBER: 141:106807

TITLE: Multiple recognition of barbiturate guests by

AUTHOR(S): Hamilton-receptor-functionalized dendrimers  
Dirksen, Anouk; Hahn, Uwe; Schwanke, Frank; Nieger,  
Martin; Reek, Joost N. H.; Voegtler, Fritz; De Cola,  
Luisa

CORPORATE SOURCE: Institute of Molecular Chemistry, Universiteit van  
Amsterdam, Amsterdam, 1018 WV, Neth.

SOURCE: Chemistry--A European Journal (2004), 10(8), 2036-2047  
CODEN: CEUJED; ISSN: 0947-6539

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The well-known unsubstituted "Hamilton receptor" was mono-functionalized with an amino group and attached at the periphery of poly(propyleneamine) dendrimers through the use of an activated ester. Four generations of Hamilton-receptor-functionalized dendrimers (HR-dendrimers) were synthesized and characterized by <sup>1</sup>H and <sup>13</sup>C NMR spectroscopy and MALDI-TOF mass spectrometry. The photophys. properties of the HR-dendrimers were investigated by UV/Vis as well as with steady-state and time-resolved fluorescence spectroscopy. The dendrimers were used as multivalent hosts for the barbiturate guests Barbitol (I) and [Re(Br)(CO)<sub>3</sub>(barbi-bpy)] (II; barbi-bpy = 5-[4-(4'-methyl)-2,2'-bipyridyl]methyl-2,4,6-(1H,3H,5H)-pyrimidinetrione). The stable adducts formed between the dendritic architectures (the hosts) and the barbiturate guests I and II were investigated by <sup>1</sup>H NMR spectroscopy and photophys. methods. The binding consts. of the barbiturate guests for binding to ref. compd. N,N'-bis-[6-(3,3-dimethylbutyrylamino)pyridin-2-yl]-5-octanoylaminoisophthalamide (III; with a single receptor unit) in chloroform were found to be 1.4 10<sup>3</sup> M<sup>-1</sup> and 1.5 10<sup>5</sup> M<sup>-1</sup> for 7 and 8, resp. Binding of I to the dendrimers enhances the weak emission of the Hamilton receptor. This increase in emission is also generation dependent; it was found to be most pronounced in the case of III and the least in the case of the fourth-generation dendrimer. The unexpected increase in the quantum yield of emission from the HR-dendrimers with increasing generation could be caused by the rather rigid conformation of the Hamilton receptors in later-generation compds., which is a result of intramol. aggregation and steric hindrance at the periphery of the dendrimer. The photoinduced energy transfer from the excited state of the HR-dendrimers to the lower-lying excited state of the guest II was used to probe the formation of host-guest complexes. The rate of energy transfer was calcd. to be 3.6 10<sup>10</sup> s<sup>-1</sup>. Energy transfer in the host-guest complex of III with II only occurred in the presence of a strong base, which shows that the basic amine core in the HR-dendrimers is crucial for this photoinduced process. The binding of II to the dendrimers is completely reversible: II can be exchanged with a competitive guest such as I and the emission of the HR-dendrimer is restored.

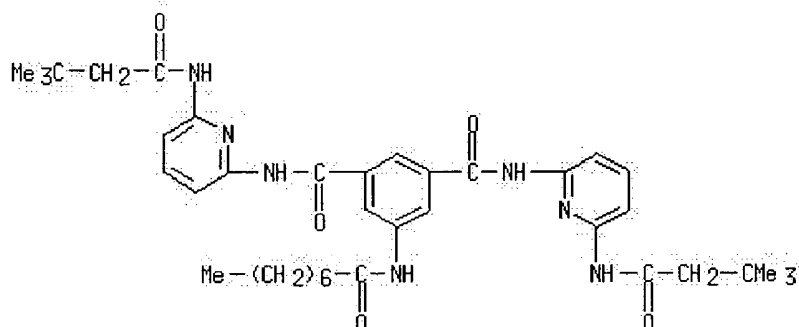
IT 717111-21-2P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(prepn. and host-guest complexes for model N,N'-bis[(dimethylbutyrylamino)pyridinyl]octanoylaminoisophthalamide)

RN 717111-21-2 HCAPLUS

CN 1,3-Benzenedicarboxamide, N,N'-bis[6-[(3,3-dimethyl-1-oxobutyl)amino]-2-pyridinyl]-5-[(1-oxooctyl)amino]- (9CI) (CA INDEX NAME)



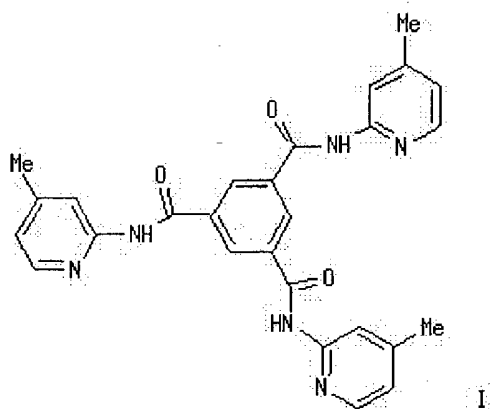


REFERENCE COUNT: 71 THERE ARE 71 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 6 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
Citing References

ACCESSION NUMBER: 2004:245051 HCAPLUS  
DOCUMENT NUMBER: 140:423878  
TITLE: Pyridine-based receptors with high affinity for carbohydrates. Influence of the degree of steric hindrance at pyridine nitrogen on the binding mode  
AUTHOR(S): Mazik, Monika; Sicking, Willi  
CORPORATE SOURCE: Institut fuer Organische Chemie der Technischen Universitaet Braunschweig, Braunschweig, 38106, Germany  
SOURCE: Tetrahedron Letters (2004), 45(15), 3117-3121  
CODEN: TELEAY; ISSN: 0040-4039  
PUBLISHER: Elsevier Science B.V.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI



AB Remarkable changes in the binding affinity and selectivity of pyridine-based receptors, e.g. I, toward glycosides have been obsd. when the degree of steric hindrance at pyridine nitrogen atom decreases. Crystal structure of I is reported.

IT **692731-95-6P**

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (of pyridine-based receptors with high affinity for carbohydrates and influence of degree of steric hindrance at pyridine nitrogen on binding mode)

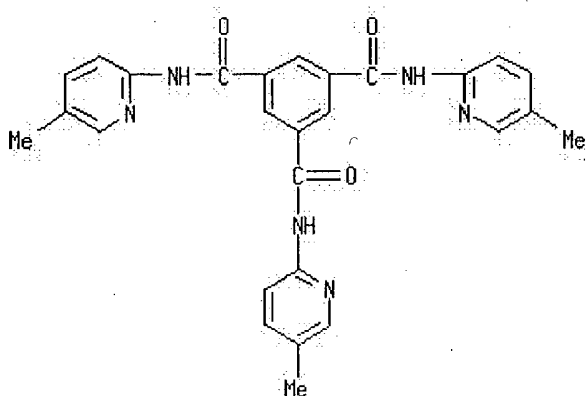
RN **692731-95-6** HCAPLUS

CN  $\alpha$ -D-Glucopyranoside, methyl, compd. with N,N',N''-tris(5-methyl-2-

pyridinyl)-1,3,5-benzenetricarboxamide (1:1) (9CI) (CA INDEX NAME)

CM 1

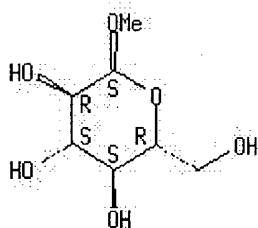
CRN 692731-93-4  
CMF C27 H24 N6 O3



CM 2

CRN 97-30-3  
CMF C7 H14 O6

Absolute stereochemistry. Rotation (+).



REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 7 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text References

ACCESSION NUMBER: 2004:158446 HCAPLUS  
DOCUMENT NUMBER: 140:331809  
TITLE: Comparing the Quality and Predictiveness between 3D QSAR Models Obtained from Manual and Automated Alignment  
AUTHOR(S): Tervo, Anu J.; Nyroenen, Tommi H.; Roenkkoe, Toni; Poso, Antti  
CORPORATE SOURCE: Department of Pharmaceutical Chemistry, University of Kuopio, Kuopio, 70211, Finland  
SOURCE: Journal of Chemical Information and Computer Sciences (2004), 44(3), 807-816  
CODEN: JCISD8; ISSN: 0095-2338  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB A set of 113 flexible cyclic urea inhibitors of human immunodeficiency virus protease (HIV-1 PR) was used to compare the quality and predictive

power of CoMFA and CoMSIA models for manually or automatically aligned inhibitor set. Inhibitors that were aligned automatically with mol. docking were in agreement with information obtained from existing x-ray structures. Both alignment methods produced statistically significant CoMFA and CoMSIA models, with the best  $q^2$  value being 0.649 and the best predictive  $r^2$  being 0.754. The manual alignment gave statistically higher values, whereas the automated alignment gave more robust models for predicting the activities of an external inhibitor set. Both models utilized similar amino acids in the HIV-1 PR active site, supporting the idea that hydrogen bonds form between an inhibitor and the backbone carbonyl oxygens of Gly48 and Gly48' and also the backbone NH group of Asp30, Gly48, Asp29', and Gly48' of the enzyme. These results suggest that an automated inhibitor alignment can yield predictive 3D QSAR models that are well comparable to manual methods. Thus, an automated alignment method in creating 3D QSAR models is encouraging when a well-characterized structure of the target protein is available.

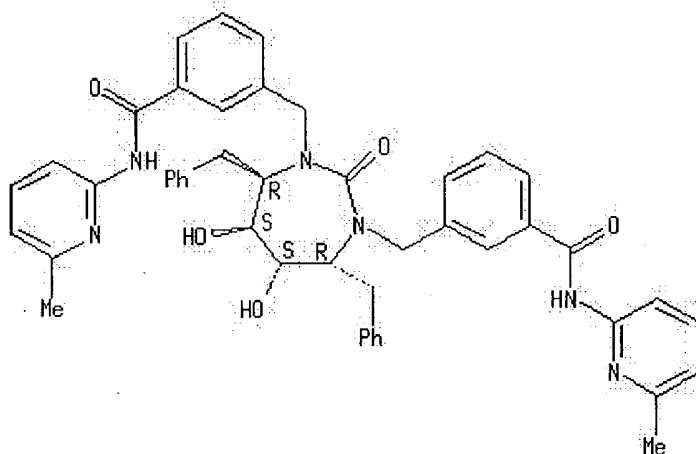
IT 183854-97-9

RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(comparing the quality and predictability between 3D QSAR CoMFA and CoMSIA models obtained from manual and automated alignment using cyclic urea HIV-1 virus protease inhibitors)

RN 183854-97-9 HCAPLUS

CN Benzamide, 3,3'-[[ (4R,5S,6S,7R)-tetrahydro-5,6-dihydroxy-2-oxo-4,7-bis(phenylmethyl)-1H-1,3-diazepine-1,3(2H)-diyl]bis(methylene)]bis[N-(6-methyl-2-pyridinyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

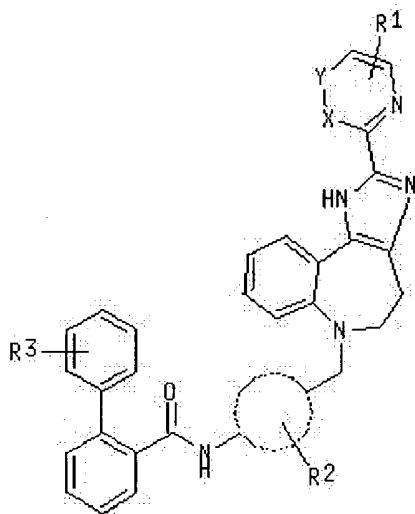
L12 ANSWER 8 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN



ACCESSION NUMBER: 2004:117842 HCAPLUS  
DOCUMENT NUMBER: 140:152009  
TITLE: Arginine vasopressin receptor antagonists containing 1,4,5,6-tetrahydroimidazo[4,5-d]benzazepine derivatives  
INVENTOR(S): Koshio, Hiroyuki; Kakefuda, Akio; Sato, Ippei; Wakayama, Ryutaro; Sanagi, Masanao  
PATENT ASSIGNEE(S): Yamanouchi Pharmaceutical Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 29 pp.

DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004043456	A2	20040212	JP 2003-141799	20030520
PRIORITY APPLN. INFO.:			JP 2002-149935	A 20020524
OTHER SOURCE(S):	MARPAT 140:152009			
GI				



AB The invention provide pharmaceutical compds. I (ring D = phenylene, etc.; X, Y = CH, N; R1, R2, R3 = H, OH, halo, lower alkyl) as arginine vasopressin receptor antagonists, suitable for treatment of cardiac failure and hyponatremia. A compd. N-[4-[2-(2-pyridyl)-1,4,5,6-tetrahydroimidazo[4,5-d][1]benzazepine-6-carbonyl]phenyl]biphenyl-2-carboxamide (II) hydrochloride was prepd. The compd. showed antagonistic effect on V1A and V2 receptors without inhibiting CYP3A4 enzyme in in vitro assay. An injection compn. contg. II 1 mg/mL was formulated.

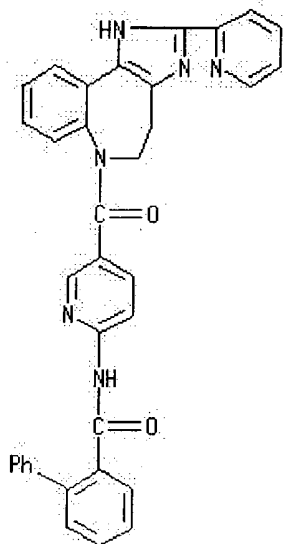
IT **433263-38-8P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(arginine vasopressin receptor inhibitors contg. 1,4,5,6-tetrahydroimidazo[4,5-d]benzazepine derivs.)

RN **433263-38-8** HCAPLUS

CN [1,1'-Biphenyl]-2-carboxamide, N-[5-[[4,5-dihydro-2-(2-pyridinyl)imidazo[4,5-d][1]benzazepin-6(1H)-yl]carbonyl]-2-pyridinyl]-, monohydrochloride (9CI) (CA INDEX NAME)



# HCl

L12 ANSWER 9 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text	References
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ACCESSION NUMBER: 2004:105138 HCAPLUS  
 DOCUMENT NUMBER: 140:287798  
 TITLE: Synthesis and Analysis of Telechelic Polyisobutylenes for Hydrogen-Bonded Supramolecular Pseudo-Block Copolymers  
 AUTHOR(S): Binder, Wolfgang H.; Kunz, Michael J.; Kluger, Christian; Hayn, Getraud; Saf, Robert  
 CORPORATE SOURCE: Institute of Applied Synthetic Chemistry, Vienna University of Technology, Vienna, A-1060, Austria  
 SOURCE: Macromolecules (2004), 37(5), 1749-1759  
 CODEN: MAMOBX; ISSN: 0024-9297  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB New telechelic polyisobutylenes (PIB) with hydrogen-bonding motifs were prepd. Nucleobases such as thymine, uracil, and cytosine as well as chelate-type hydrogen-bonding donor-acceptors were affixed onto the end groups of the PIB. Starting with PIB of defined mol. wt., prepd. by living cationic polymn., hydroxy-terminated PIB was generated, which subsequently was transformed into the corresponding chloromethyl ether. Reaction with silylated nucleobases furnished the final nucleobase-telechelic PIB in high yields. The chelate-type PIB was prepd. by a sequence of nucleophilic/addn. reaction steps adapted to the low soly. of PIB polymers in polar solvents. The structure of the PIB polymers was proven by <sup>1</sup>H NMR, <sup>13</sup>C NMR, and MALDI-TOF MS anal. proving the complete conversion between the reaction steps in quant. yields. The pure PIB polymers with specific hydrogen bonding patterns will allow the investigation of supramol. pseudo-block copolymers.

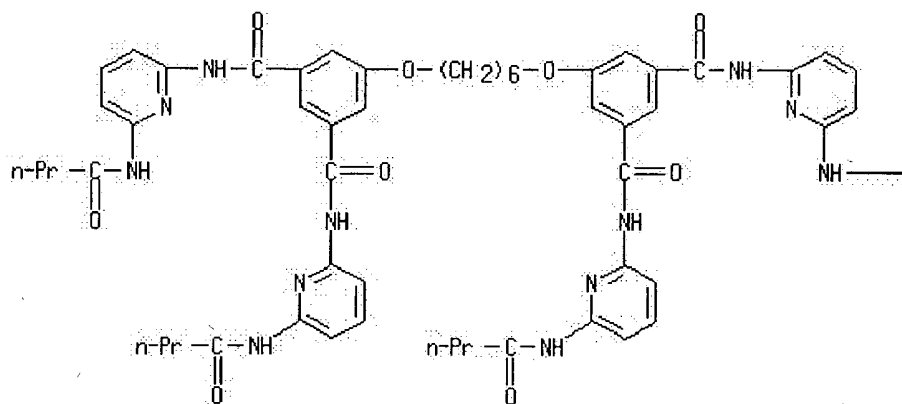
IT **676267-93-9P**

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (model compd.; prepn. of model compds. for synthesis and anal. of telechelic polyisobutylenes for hydrogen-bonded supramol. pseudo-block copolymers)

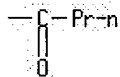
RN **676267-93-9** HCAPLUS

CN 1,3-Benzenedicarboxamide, 5,5'-[1,6-hexanediylbis(oxy)]bis[N,N'-bis[6-[(1-oxobutyl)amino]-2-pyridinyl]]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

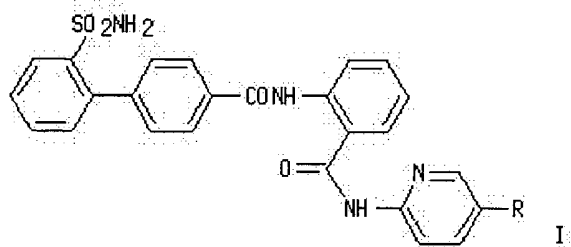


REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 10 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
Cited References

ACCESSION NUMBER: 2004:99292 HCAPLUS  
DOCUMENT NUMBER: 140:321217  
TITLE: Design, synthesis, and SAR of anthranilamide-based factor Xa inhibitors incorporating substituted biphenyl P4 motifs  
AUTHOR(S): Zhang, Penglie; Bao, Liang; Zuckett, Jingmei F.; Goldman, Erick A.; Jia, Zhaozhong J.; Arfsten, Ann; Edwards, Susan; Sinha, Uma; Hutchaleelaha, Athiwat; Park, Gary; Lambing, Joseph L.; Hollenbach, Stanley J.; Scarborough, Robert M.; Zhu, Bing-Yan  
CORPORATE SOURCE: Millennium Pharmaceuticals, Inc., Francisco, CA, 94080, USA  
SOURCE: Bioorganic & Medicinal Chemistry Letters (2004), 14(4), 983-987  
CODEN: BMCLE8; ISSN: 0960-894X  
PUBLISHER: Elsevier Science B.V.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI



AB Anthranilamides I [R = Br, Cl] were designed and synthesized as selective and orally bioavailable factor Xa inhibitors. Structural modifications aimed at lowering their lipophilicity were performed at the central Ph ring and at the S4 binding biphenyl region by incorporating water solubilizing substituents. The resulting compds. are highly potent in vitro, and show improved activity in human plasma-based thrombin generation assay.

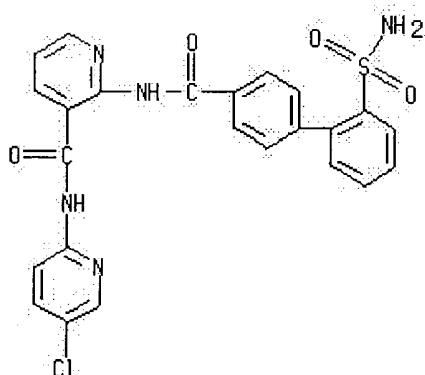
IT **330939-75-8P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(prepn. and structure-activity relationships of biphenylcarbamoylethanthranilamides as factor Xa inhibitors)

RN **330939-75-8** HCAPLUS

CN 3-Pyridinecarboxamide, 2-[[[2'-(aminosulfonyl)[1,1'-biphenyl]-4-yl]carbonyl]amino]-N-(5-chloro-2-pyridinyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 11 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text Citing References

ACCESSION NUMBER: 2004:41463 HCAPLUS  
 DOCUMENT NUMBER: 140:77161  
 TITLE: Preparation of pyrimidinylaminobenzamides as inhibitors of protein kinases, in particular tyrosine kinases for treating neoplasm, especially leukemia  
 INVENTOR(S): Breitenstein, Werner; Furet, Pascal; Jacob, Sandra; Manley, Paul William  
 PATENT ASSIGNEE(S): Novartis A.-G., Switz.; Novartis Pharma G.m.b.H.  
 SOURCE: PCT Int. Appl., 83 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004005281	A1	20040115	WO 2003-EP7198	20030704
WO 2004005281	C1	20040506		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LT, LU, LV, MA, MD, MK, MN, MX, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SE, SG, SK, SY, TJ, TM, TN, TR, TT, UA, US, UZ, VC, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR

PRIORITY APPLN. INFO.: GB 2002-15676 A 20020705  
GB 2002-29893 A 20021220

OTHER SOURCE(S): MARPAT 140:77161

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Title compds. I [wherein R1 = H, alkoxy/carboxy/alkoxycarbonyl/phenyl/alkyl; R2 = H, (un)substituted cyclo/benzcyclo/alkyl, heterocyclyl, aryl, mono- or bicyclic heteroaryl; R1R2 = (un)substituted alkylene with 4-6 C atoms, benzaalkylene with 4 or 5 C atoms, oxaalkylene with one O and 3 or 4 C atoms, azaalkylene with one N and 3 or 4 C atoms where N is (un)substituted by phenyl/alkoxycarbonyl/carboxy/carbamoyl/alkyl, alkoxycarbonyl, carboxy, (un)substituted Ph, pyridyl, pyrimidinyl, pyrazinyl, etc.; R4 = H, alkyl, halo; their N-oxides, tautomers, and pharmaceutical acceptable salts] were prepd. as inhibitors of protein kinases, in particular tyrosine kinases for treating neoplastic diseases, esp. leukemia. II was prepd. by amidation of 4-Methyl-3-[[4-(3-pyridinyl)-2-pyrimidinyl]amino]benzoic acid (prepn. given) with N,N-diethyl-1,3-benzenediamine in the presence of propylphosphonic anhydride/TEA/DMF at room temp. for 24 h. In an in vitro test, II inhibited C-Abl, KDR, and Flt3 tyrosine kinase in 98%, 88%, and 41% resp. I exhibited IC50 values for the inhibition of Flt-1 VEGF receptor tyrosine kinase in the range of 1-10,000 nM, preferably in the range of 1-100 nM. Thus, I and their pharmaceutical compns. are useful for treatment of neoplasm, in particular leukemia.

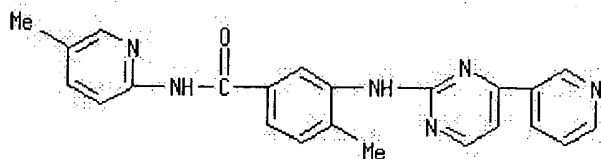
IT **641570-54-9P**, 4-Methyl-N-(5-methyl-2-pyridinyl)-3-[[4-(3-pyridinyl)-2-pyrimidinyl]amino]benzamide

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(tyrosine kinases inhibitor; prepn. of pyrimidinylaminobenzamides as inhibitors of tyrosine kinases in particular tyrosine kinases for treatment of leukemia)

RN **641570-54-9** HCAPLUS

CN Benzamide, 4-methyl-N-(5-methyl-2-pyridinyl)-3-[[4-(3-pyridinyl)-2-pyrimidinyl]amino]- (9CI) (CA INDEX NAME)



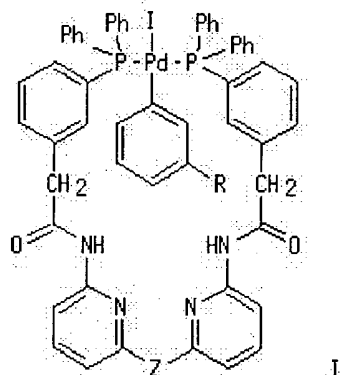


REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 12 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text References

ACCESSION NUMBER: 2004:37118 HCAPLUS  
 DOCUMENT NUMBER: 141:7245  
 TITLE: Preparation of a novel diphosphine-palladium macrocyclic complex possessing a molecular recognition site. Oxidative addition studies  
 AUTHOR(S): Larsen, Jens; Rasmussen, Brian S.; Hazell, Rita G.; Skrydstrup, Troels  
 CORPORATE SOURCE: Department of Chemistry and the Interdisciplinary Nanoscience Center, University of Aarhus, Aarhus C, 8000, Den.  
 SOURCE: Chemical Communications (Cambridge, United Kingdom) (2004), (2), 202-203  
 CODEN: CHCOFS; ISSN: 1359-7345  
 PUBLISHER: Royal Society of Chemistry  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 141:7245  
 GI



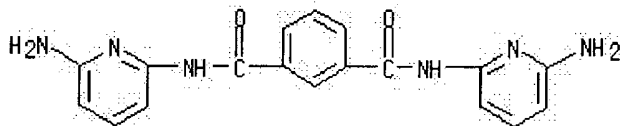
AB Macrocyclic diphosphine ligands having Hamilton's barbiturate binding domain interact with Pd(dba)<sub>2</sub> giving mixt. of Pd(0) species; oxidative addn. reactions of aryl iodide-substituted barbiturate gave trans-arylpalladium iodide complex featuring host-guest interactions of the barbiturate moiety with the macrocycle. Oxidative addn. of the substituted barbiturate, 3-IC<sub>6</sub>H<sub>4</sub>R (4, R = 5-methyl-2,4,6(1H,3H,5H)-pyrimidinetrion-5-ylmethyl) afforded complex I (6, Z = N,N'-isophthalimido), crystal structure of which revealed the hydrogen bonding between the barbiturate moiety and the macrocycle. Palladium(II) mol. assoc. I·[5-(3-butenyl)-5-methyl-2,4,6(1H,3H,5H)-pyrimidinetrione] (7; Z = N,N'-isophthalimido, R = H) in which the Ph group is directed to the outside of the macrocycle, was prepd. by oxidative addn. of iodobenzene in the presence of the substituted barbiturate. Crystal structure of 6 and 7 is described.

IT 112817-57-9

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (acylation; prepn. of palladium host-guest complexes of trans-macrocyclic diphosphine contg. Hamilton's barbiturate binding site)

RN 112817-57-9 HCAPLUS

CN 1,3-Benzenedicarboxamide, N,N'-bis(6-amino-2-pyridinyl)- (9CI) (CA INDEX NAME)

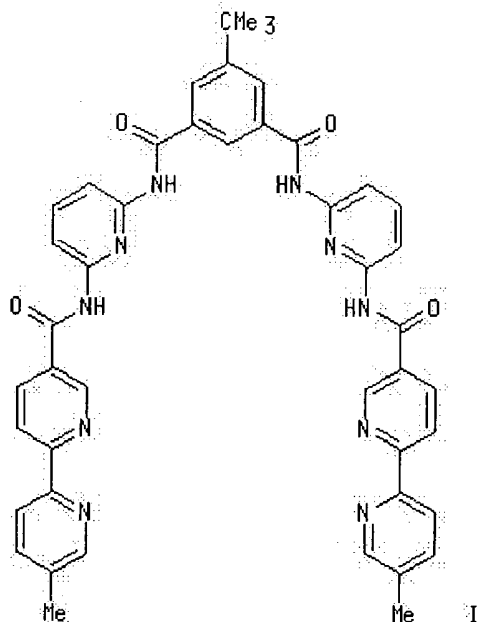


REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 13 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
Citing References

ACCESSION NUMBER: 2004:15636 HCAPLUS  
DOCUMENT NUMBER: 140:217490  
TITLE: Structural studies on hydrogen-bonding receptors for barbiturate guests that use metal ions as allosteric inhibitors  
AUTHOR(S): Al-sayah, Mohammad H.; McDonald, Robert; Branda, Neil R.  
CORPORATE SOURCE: Department of Chemistry, University of Alberta, Edmonton, AB, T6G 2G2, Can.  
SOURCE: European Journal of Organic Chemistry (2004), (1), 173-182  
CODEN: EJOCFK; ISSN: 1434-193X  
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 140:217490  
GI



AB N,N'-bis(arylcarbonylaminopyridinyl)isophthalamides such as I are prepd. as barbiturate receptors in which the binding of barbiturate is regulated allosterically through the presence or absence of a metal capable of binding to the terminal aryl moieties. An N,N'-

bis(arylcarbonylaminopyridinyl)isophthalamide with a terminal 2,2'-bipyridine-6-carbonyl moiety is prep'd. and found incapable of binding 5,5-dibutylbarbituric acid; synthesis of other N,N'-bis(arylcarbonylaminopyridinyl)isophthalamides indicates that the lack of binding is caused by the presence of an intramol. hydrogen bond which disrupts the hydrogen bonds needed for binding of substrate. Modified receptor I (with terminal 2,2'-bipyridine-5-carbonyl moieties rather than 2,2'-bipyridine-6-carbonyl moieties) successfully binds 5,5-dibutylbarbituric acid with a  $K_a$  value of  $2.8 \times 10^3 \text{ M}^{-1}$ . I does not bind 5,5-dibutylbarbituric acid in the presence of zinc (II) triflate; the structure of the zinc complex of I is det'd. by two-dimensional  $^1\text{H}$  NMR expts. The structure of one of the N,N'-bis(arylcarbonylaminopyridinyl)isophthalamides is det'd. by X-ray crystallog.

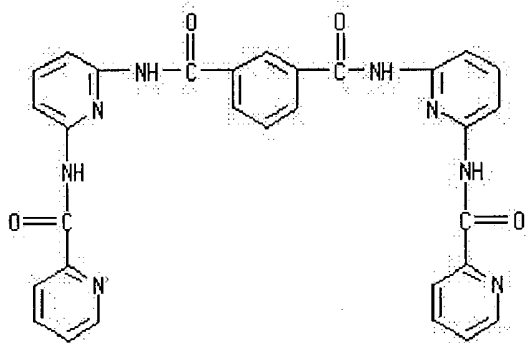
## IT 665026-34-6P

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)

(crystal structure; prepn. of N,N'-bis(arylcarbonylaminopyridinyl)isophthalamides as hydrogen-bonding receptors for barbituric acids regulated allosterically by the presence or absence of zinc)

RN 665026-34-6 HCAPLUS

CN 1,3-Benzenedicarboxamide, N,N'-bis[6-[(2-pyridinylcarbonyl)amino]-2-pyridinyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

50

THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 14 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text References

ACCESSION NUMBER: 2003:950836 HCAPLUS

DOCUMENT NUMBER: 140:16722

TITLE: Preparation of 1,1-disubstituted cycloalkyl derivatives as factor Xa inhibitors for treating a thromboembolic disorder

INVENTOR(S): Qiao, Jennifer X.; Pinto, Donald J.; Orwat, Michael J.; Han, Wei; Friedrich, Sarah R.

PATENT ASSIGNEE(S): Bristol-Myers Squibb Company, USA

SOURCE: PCT Int. Appl., 686 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2003099276

A1

20031204

WO 2003-US13893

20030505

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

US 2002-379357P

P 20020510

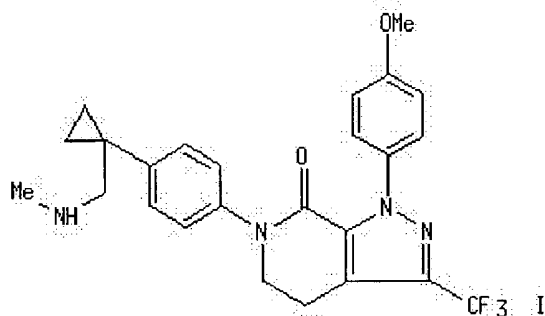
US 2002-415367P

P 20021002

OTHER SOURCE(S):

MARPAT 140:16722

GI



AB The present application describes 1,1-disubstituted cycloalkyl compds. and derivs. thereof (P4-P-M-M4; variables defined below; most of the examples contain 1,4,5,6-tetrahydro-7H-pyrazolo[3,4-c]pyridin-7-one, e.g. the trifluoroacetate of I), or pharmaceutically acceptable salt forms thereof, which are useful as inhibitors of factor Xa for treatment of a thromboembolic disorder. Although the methods of prepn. are not claimed, ~240 example prepn. are included. A no. of I exhibit  $K_i$ 's of <10  $\mu$ M towards factor Xa; also some I are direct acting inhibitors ( $K_i$  < 10  $\mu$ M) of the serine protease thrombin as indicated by their ability to inhibit the cleavage of small mol. substrates by thrombin in a purified system; the specific compds. are not stated. For I: M is a 3-10 membered carbocycle or a 4-10 membered heterocycle, consisting of: C atoms and 1-3 heteroatoms = O, S(O)p, N, and N2; ring M is substituted with 0-3 R1a and 0-2 carbonyl groups, and there are 0-3 ring double bonds; P is fused onto ring M and is a 5, 6, or 7 membered carbocycle or a 5, 6, or 7 membered heterocycle, consisting of: C atoms and 1-3 heteroatoms = O, S(O)p, and N; ring P is substituted with 0-3 R1a and 0-2 carbonyl groups, and there are 0-3 ring double bonds; alternatively, ring P is absent and P4 is directly attached to ring M, provided that when ring P is absent, P4 and M4 are attached to the 1,2, 1,3, or 1,4 positions of ring M. One of P4 and M4 is -Z-A-B and the other -G1-G, provided that P4 and M4 are attached to different rings when ring P is present; G consists of 2 fused rings D and E (ring D, including the two atoms of Ring E to which it is attached, is a 5-6 membered ring consisting of carbon atoms and 0-2 heteroatoms selected from the group consisting of N, O, and S(O)p; E is selected from (un)substituted Ph, pyridyl, pyrimidyl, pyrazinyl, and pyridazinyl; alternatively, ring D is absent and ring E is selected from (un)substituted Ph, pyridyl, pyrimidyl, pyrazinyl, pyridazinyl, pyrrolyl,

h

eb c

g cg b

cg

eb

pyrazolyl, imidazolyl, isoxazolyl, oxazolyl, triazolyl, thienyl, and thiazolyl); G1 is absent or = (CR3R3a)1-5, etc. A = (un)substituted C3-10 carbocycle and 5-12 membered heterocycle consisting of: C atoms and 1-4 heteroatoms N, O, and S(O)p; B is Y-R4a or X-Y-R4a, provided that Z and B are attached to different atoms on A and A and R4a or X and R4a are attached to the same atom on Y; Z = a bond, -(CR3R3e)1-4-, etc. Addnl. details including provisos are given in the claims.

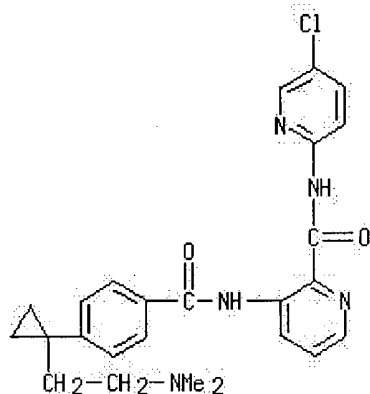
IT **630389-32-1P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; prepn. of 1,1-disubstituted cycloalkyl derivs. as factor Xa inhibitors for treating thromboembolic disorder)

RN 630389-32-1 HCAPLUS

CN 2-Pyridinecarboxamide, N-(5-chloro-2-pyridinyl)-3-[[4-[1-[2-(dimethylamino)ethyl]cyclopropyl]benzoyl]amino]- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

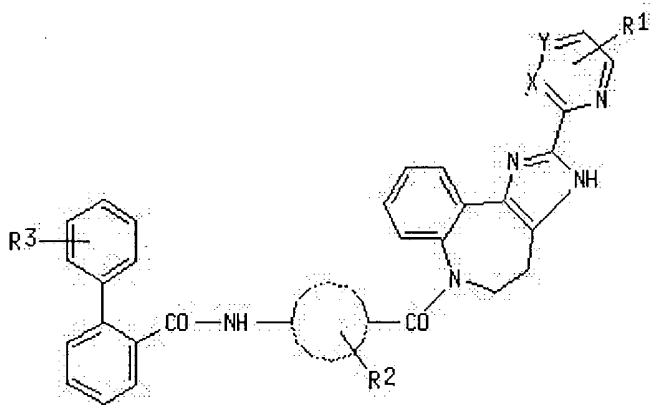
L12 ANSWER 15 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text      Citations  
References

ACCESSION NUMBER: 2003:945402 HCAPLUS  
DOCUMENT NUMBER: 140:769  
TITLE: Benzoazepine derivatives as Meniere's disease remedies  
INVENTOR(S): Matsukawa, Utane; Fujimori, Akira; Arai, Yukinori; Sudo, Katsumi  
PATENT ASSIGNEE(S): Yamanouchi Pharmaceutical Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003342175	A2	20031203	JP 2002-149965	20020524
PRIORITY APPLN. INFO.:			JP 2002-149965	20020524
OTHER SOURCE(S):	MARPAT	140:769		

GI



I

AB The new 1,4,5,6-tetrahydroimidazo[4,5-d]benzoazepine derivs. (I; ring D = phenylene, pyridindiy; X, Y = CH, N; R1, R2, R3 = H, OH, halogen, low alkyl) and their pharmaceutically acceptable salts are claimed as Meniere's disease and hearing disorder remedies. I were prepd., and formulation examples of injections and capsules were given.

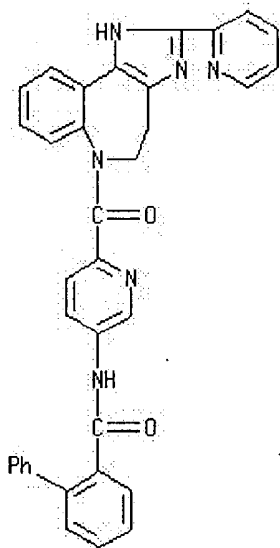
IT **433263-40-2P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(benzoazepine derivs. as Meniere's disease remedies)

RN 433263-40-2 HCAPLUS

CN [1,1'-Biphenyl]-2-carboxamide, N-[6-[[4,5-dihydro-2-(2-pyridinyl)imidazo[4,5-d][1]benzazepin-6(1H)-yl]carbonyl]-3-pyridinyl]-, monohydrochloride (9CI) (CA INDEX NAME)



# HCl

L12 ANSWER 16 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text: [References](#)

ACCESSION NUMBER: 2003:851478 HCAPLUS  
DOCUMENT NUMBER: 140:60070  
TITLE: The Effect of Global Compaction on the Local Secondary Structure of Folded Dendrimers  
AUTHOR(S): Huang, Baohua; Prantil, Matthew A.; Gustafson, Terry L.; Parquette, Jon R.

CORPORATE SOURCE: Department of Chemistry, The Ohio State University,  
Columbus, OH, 43210, USA

SOURCE: Journal of the American Chemical Society (2003),  
125(47), 14518-14530  
CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The effect of nonlocal interactions on the local structural propensities of folded dendrimers was evaluated by comparing, under identical conditions, the conformational properties of isomeric dendrimers differing in their global packing efficiency. A modular synthesis of two series of dendrimers up to the third generation was developed to provide efficient access to isomeric dendrimers displaying different levels of overall compaction. Dendrimer compaction levels were adjusted by connecting the folded dendrons to 1,3,5-benzenetricarbonyl chloride, as the central core, via either a 2- or a 4-aminobenzamide linkage to induce relatively compacted or expanded conformations, resp. The hydrodynamic vol. of the dendrimers was measured by time-resolved fluorescence anisotropy (TRFA) as a function of the dendrimer series, generation level, and solvent. Packing efficiency (compaction level) was estd. by the ratio ( $V_h/V_{vw}$ ) of the exptl. hydrodynamic vol. ( $V_h$ ) to the calcd. van der Waals vol. ( $V_{vw}$ ). The extent and stability of local helical bias was measured using CD and correlated with the packing efficiency ( $V_h/V_{vw}$ ). Compaction plays an extremely important role in detg. the secondary structural preferences of the dendrimers; however, the nature of compaction was more important than the extent of compaction.

IT 638128-32-2P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

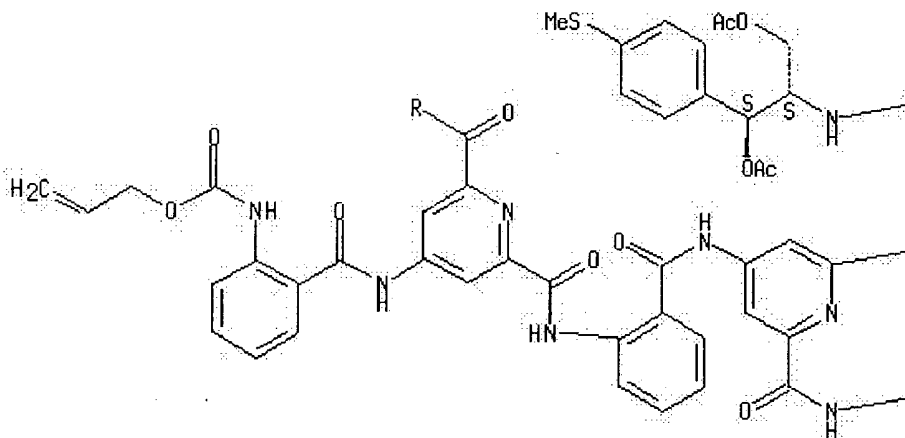
([G2]-o-link-N-alloc dendrimer; modular synthesis and effect of global compaction on local secondary structure of folded isomeric dendrimers from CD and fluorescence anisotropy data)

RN 638128-32-2 HCAPLUS

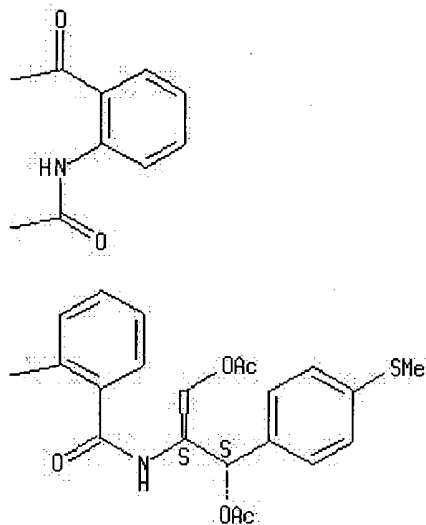
CN Carbamic acid, [2-[[[2,6-bis[[[2-[[[2,6-bis[[[2-[[[(1S,2S)-2-(acetyloxy)-1-[(acetyloxy)methyl]-2-[4-(methylthio)phenyl]ethyl]amino]carbonyl]phenyl]amino]carbonyl]-4-pyridinyl]amino]carbonyl]phenyl]amino]carbonyl]-4-pyridinyl]amino]carbonyl]phenyl]-, 2-propenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

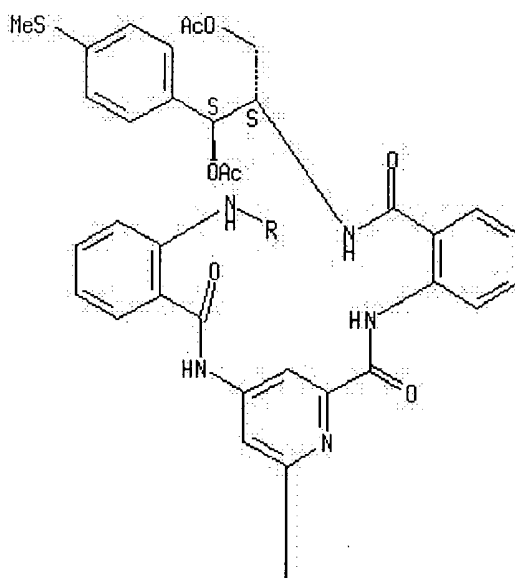
PAGE 1-A



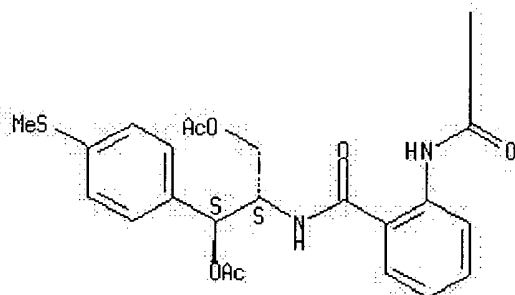
PAGE 1-B



PAGE 2-A



PAGE 3-A



REFERENCE COUNT:

106

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THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
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L12 ANSWER 17 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text	Full References
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ACCESSION NUMBER: 2003:528697 HCAPLUS  
 DOCUMENT NUMBER: 139:223608  
 TITLE: Effect of Polymer Concentration on Partitioning and  
 Molecular Recognition in Plasticized Poly(vinyl  
 chloride)  
 AUTHOR(S): Zhang, Xu; Zhao, Hong; Chen, Zhi; Nims, Raymond;  
 Weber, Stephen G.  
 CORPORATE SOURCE: Department of Chemistry, University of Pittsburgh,  
 Pittsburgh, PA, 15260, USA  
 SOURCE: Analytical Chemistry (2003), 75(16), 4257-4264  
 CODEN: ANCHAM; ISSN: 0003-2700  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

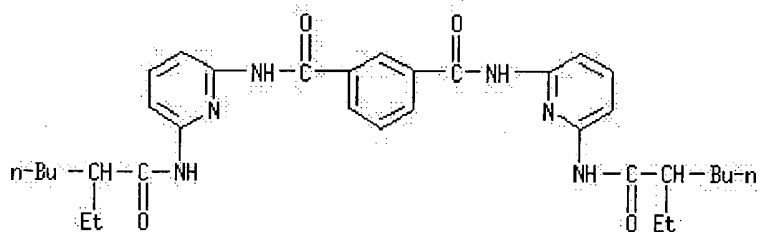
AB Mixts. of poly(vinyl chloride) (PVC) with plasticizers have been used in ion-selective electrodes for many years. The same material has proven useful in solid-phase microextn. (SPME), both with and without artificial receptors. The authors hypothesized that by changing the polymer concn. in plasticized PVC membranes contg. artificial receptor from the std. 33 wt. %, the selectivity of the extn. of barbiturates over similar mols. could be improved. Partition coeffs. and receptor-substrate formation consts. of a target species, phenobarbital, in membranes with various polymer concns. were detd. Diffusion coeffs. of the solute phenobarbital in receptor-free membranes were also detd. Kamlet-Taft solvatochromic properties  $\beta$  and  $\pi^*$  were measured for the PVC/dioctyl sebacate materials. Cohesive energy densities were calcd. for the same materials. Partition coeffs. for phenobarbital (from aq. soln. to membrane) decrease as [PVC] increases, while the formation consts. for the complex of the solute with its receptor increase. Diffusion coeffs. decrease as the polymer concn. increases as well. The increase in polymer concn. brings about a decrease in hydrogen-bonding basicity and an increase in dipolarity and cohesive energy d. The values of the solvatochromic parameters detd. at various compns. are highly correlated; thus, it is impossible to calc. how much each factor contributes to the changes assocd. with partition and complex formation. The solvatochromic "polarizability correction factor" has been detd. to be 0 for PVC. In SPME expts. at 30%, 40%, and 50% (wt./wt.) PVC, as polymer concn. increases, selectivity for barbiturate extn. over other cyclic imides becomes better in the presence of barbiturate receptor and worse without receptor.

IT 228271-35-0

RL: ARU (Analytical role, unclassified); ANST (Analytical study)  
 (effect of polymer concn. on partitioning and mol. recognition in  
 plasticized poly(vinyl chloride) and application to extn. of  
 barbiturates from aq. soln. using artificial receptor)

RN 228271-35-0 HCAPLUS

CN 1,3-Benzenedicarboxamide, N,N'-bis[6-[(2-ethyl-1-oxohexyl)amino]-2-  
 pyridinyl]- (9CI) (CA INDEX NAME)



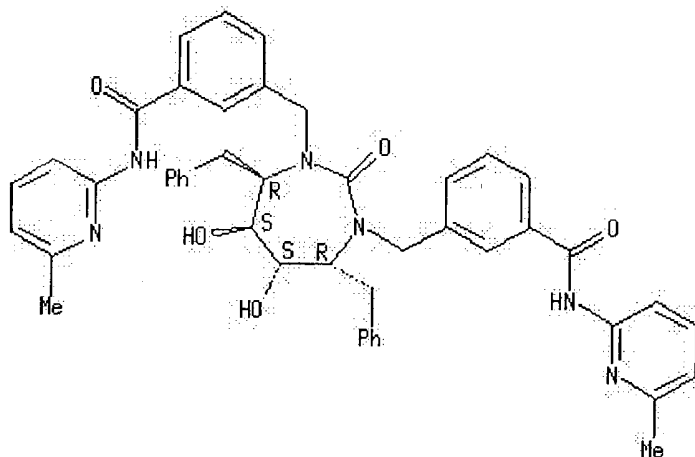
REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 18 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text References

ACCESSION NUMBER: 2003:528288 HCAPLUS  
DOCUMENT NUMBER: 139:223715  
TITLE: Anti-HIV Activity of HEPT, TIBO, and Cyclic Urea Derivatives: Structure-Property Studies, Focused Combinatorial Library Generation, and Hits Selection Using Substructural Molecular Fragments Method  
AUTHOR(S): Solov'ev, V. P.; Varnek, A.  
CORPORATE SOURCE: Institute of Physiologically Active Compounds, Russian Academy of Sciences, Chernogolovka, 142432, USA  
SOURCE: Journal of Chemical Information and Computer Sciences (2003), 43(5), 1703-1719  
CODEN: JCISD8; ISSN: 0095-2338  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Substructural mol. fragments (SMF) method [Solov'ev, V. P.; Varnek, A.; Wipff, G. J. Chem. Inf. Comput. Sci. 2000, 40, 847-858] was applied to assess anti-HIV activity for large data sets for three families of compds.: 1-[2-hydroxyethoxymethyl]-6-(phenylthio)thymine (HEPT) derivs., tetrahydroimidazobenzodiazepinone (TIBO) derivs., and cyclic urea (CU) derivs. The SMF method uses 49 types of topol. descriptors (atom/bond sequences and "augmented atoms") which, being coupled with 3 linear and nonlinear fitting equations, allows the user to generate up to 147 structure-property models. For each family of compds., the modeling was performed on several training sets followed by the validation calcns. where three best fit models were applied. Calcd. activities well reproduce available exptl. data. On the basis of the "optimal" mol. fragments, the focused combinatorial library contg. 252 virtual HEPT derivs. has been generated. Its filtering led to several hits potentially possessing anti-HIV activity.  
IT 183854-97-9  
RL: BUU (Biological use, unclassified); PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(anti-HIV activity of HEPT, TIBO, and cyclic urea derivs. and structure-property studies, focused combinatorial library generation, and hits selection using substructural mol. fragments method)  
RN 183854-97-9 HCAPLUS  
CN Benzamide, 3,3'-[[[(4R,5S,6S,7R)-tetrahydro-5,6-dihydroxy-2-oxo-4,7-bis(phenylmethyl)-1H-1,3-diazepine-1,3(2H)-diyl]bis(methylene)]bis[N-(6-methyl-2-pyridinyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 69 THERE ARE 69 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 19 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
Cited References

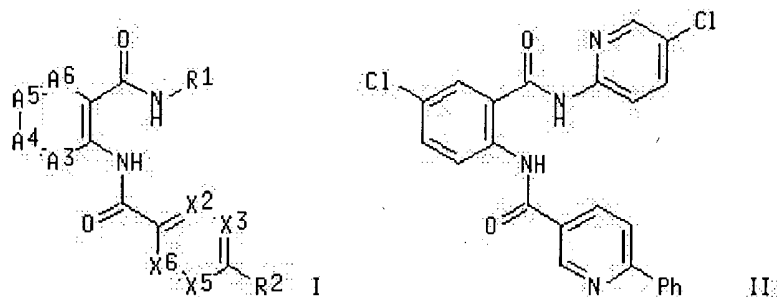
ACCESSION NUMBER: 2003:472489 HCAPLUS  
DOCUMENT NUMBER: 139:53037  
TITLE: Preparation of substituted heterocyclic carboxamides with antithrombotic activity  
INVENTOR(S): Herron, David Kent; Joseph, Sajjan; Marquart, Angela Lynn; Masters, John Joseph; Mendel, David; Smith, Gerald Floyd; Tebbe, Anne Louise; Waid, Philip Parker; Wiley, Michael Robert; Yee, Ying Kwong  
PATENT ASSIGNEE(S): Eli Lilly and Company, USA; et al.  
SOURCE: PCT Int. Appl., 102 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003050088	A1	20030619	WO 2002-US36139	20021202
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, VZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.: US 2001-338337P P 20011207

OTHER SOURCE(S): MARPAT 139:53037

GI



AB The title compds. [I; A3-A6, together with the two carbons to which they are attached, complete a substituted benzene or pyridine; R1 = (un)substituted 2-pyridyl; one or two of X1-X4 = N and each of others of X1-X4 = CH; R2 = (un)substituted Ph, 5-6 membered heteroaryl, etc.], useful as inhibitors of factor Xa, were prepd. Thus, coupling 5-chloro-2-(6-chloropyridin-3-ylcarbonylamino)-N-(5-chloropyridin-2-yl)benzamide (prepn. given) with phenylboronic acid afforded the pyridinecarboxamide II. In general, the compds. I exhibit a Kass of  $3\text{--}10 \times 10^6$  L/Mol or greater against factor Xa (Kass is calcd. for a range of concns. of test compds. which produce hydrolysis inhibition between 20% and 80% of control and the mean value reported in units of liter per mol).

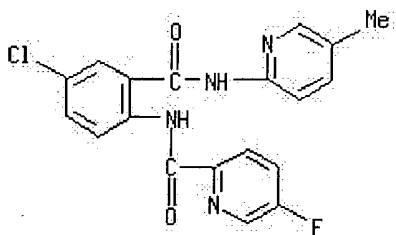
IT **395684-75-0P**, 5-Chloro-2-((5-fluoropyridin-2-ylcarbonyl)amino)-N-(5-methylpyridin-2-yl)benzamide

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of substituted heterocyclic carboxamides with antithrombotic activity)

RN **395684-75-0** HCAPLUS

CN 2-Pyridinecarboxamide, N-[4-chloro-2-[(5-methyl-2-pyridinyl)amino]carbonyl]phenyl]-5-fluoro- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

9

THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 20 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text References

ACCESSION NUMBER:

2003:434537 HCAPLUS

DOCUMENT NUMBER:

139:22020

TITLE:

Preparation of cyclic amides as apolipoprotein B inhibitors

INVENTOR(S):

Takasugi, Hisashi; Inoue, Yoshikazu; Terasawa, Takeshi; Nagayoshi, Akira; Furukawa, Yoshiro; Mikami, Masafumi; Hinoue, Kazumasa; Ohtsubo, Makoto; Fukumoto, Daisuke

PATENT ASSIGNEE(S):

Fujisawa Pharmaceutical Co., Ltd., Japan; Daiso Co., Ltd.

SOURCE:

PCT Int. Appl., 297 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>WO 2003045921</u>	A1	20030605	<u>WO 2002-JP11034</u>	20021024
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
<u>WO 2002090347</u>	A1	20021114	<u>WO 2002-JP3529</u>	20020409
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
<u>PRIORITY APPLN. INFO.:</u>			<u>AU 2001-9164</u>	A 20011128
			<u>AU 2002-443</u>	A 20020211
			<u>TW 2002-91106855</u>	A 20020404
			<u>WO 2002-JP3529</u>	A 20020409
			<u>AU 2001-4722</u>	A 20010430
			<u>AU 2002-9937</u>	A 20020111

OTHER SOURCE(S): MARPAT 139:22020

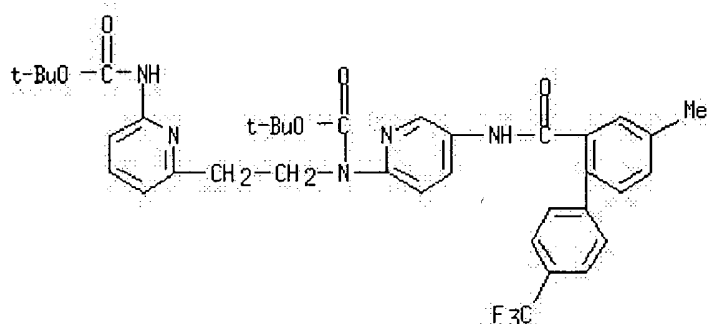
AB The present invention relates to R1XC(O)NH-A-Z-Y-R2 (1; mostly 2-phenyl-1-cycloalkenecarboxamides and 1,1'-biphenyl-2-carboxamides) wherein R1 is (un)substituted aryl; R2 is (un)substituted aryl, (un)substituted heteroaryl, (un)substituted lower cycloalkyl, (un)substituted aryloxy, (un)substituted arylsulfonyl, vinyl, carbamoyl, protected carboxy or protected amino; ring A is bivalent residue derived from (un)substituted aryl or (un)substituted heteroaryl; X is bivalent residue derived from cycloalkene, naphthalene, unsatd. 5 or 6-membered heteromonocyclic group, each of which is (un)substituted, and substituted benzene; Y is -(A1)m1-(A2)m2- (A1 is -NH-, -N(R3)-, -CO-, -NHCO-, -CONH-, -COCH:CH-, -O-, -CH2O-, -CH2NHCO-, -CH2CONH or -CH(OH)-, wherein R3 is amino protective group, A2 is lower alkylene (un)substituted by aryl, and m1 and m2 = 0 or 1); and Z is direct bond or piperazine, or a salt thereof. Compds. 1 (e.g. 4'-chloro-4-methyl-N-[4-[[2-(2-pyridinyl)ethyl]amino]phenyl]-1,1'-biphenyl-2-carboxamide) inhibit apolipoprotein B (Apo B) secretion and are useful as a medicament for prophylactic and treatment of diseases or conditions resulting from elevated circulating levels of Apo B. For example, 4'-chloro-4-methyl-N-[4-[[2-(2-pyridinyl)ethyl]amino]phenyl]-1,1'-biphenyl-2-carboxamide exhibited 95% inhibition of Apo B secretion at 10<sup>-8</sup> M; also, it lowered cholesterol and triglyceride levels in ddY-mice by 86 and 36%, resp. after 2 h. Example preps. of >400 1 and 187 intermediates are included. For example, 2-isopropyl-N-[4-[[2-(2-pyridinyl)ethyl]amino]phenyl]-4-[4-(trifluoromethyl)phenyl]-5-pyrimidinecarboxamide (366 mg) was prepd. from

2-isopropyl-4-[4-(trifluoromethyl)phenyl]-5-pyrimidinecarboxylic acid (495 mg), tert-Bu 4-aminophenyl[2-(2-pyridinyl)ethyl]carbamate (470 mg) and 1-hydroxybenzotriazole hydrate (223 mg) and 1-[3-(dimethylamino)propyl]-3-ethylcarbodiimide hydrochloride (315 mg) in N,N-dimethylformamide (20 mL) followed by CF<sub>3</sub>CO<sub>2</sub>H. The reactant tert-Bu 4-aminophenyl[2-(2-pyridinyl)ethyl]carbamate (15.03 g) was prepd. from tert-Bu 4-nitrophenyl[2-(2-pyridinyl)ethyl]carbamate (20.03 g) in ethanol (400 mL) and iron(III) chloride (189 mg) and active charcoal (20 g) followed by hydrazine hydrate (11.67 g).

IT **537716-57-7P**, tert-Butyl [2-[6-[(tert-butoxycarbonyl)amino]-2-pyridinyl]ethyl][5-[[[4-methyl-4'-(trifluoromethyl)-1,1'-biphenyl]-2-yl]carbonyl]amino]-2-pyridinyl]carbamate  
 RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (drug candidate; prepn. of cyclic amide compds. as apolipoprotein B secretion inhibitors)

RN **537716-57-7** HCAPLUS

CN Carbamic acid, [2-[6-[(1,1-dimethylethoxy)carbonyl]amino]-2-pyridinyl]ethyl][5-[[[4-methyl-4'-(trifluoromethyl)[1,1'-biphenyl]-2-yl]carbonyl]amino]-2-pyridinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 21 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
 References

ACCESSION NUMBER: 2003:242097 HCAPLUS  
 DOCUMENT NUMBER: 138:267201  
 TITLE: Pesticidal compositions for coating plant propagation material containing anthranilamides  
 INVENTOR(S): Berger, Richard Alan; Flexner, John Lindsey  
 PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA  
 SOURCE: PCT Int. Appl., 147 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003024222	A1	20030327	WO 2002-US30302	20020910
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				

LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
 PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,  
 UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD,  
 RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,  
 CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,  
 PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,  
 NE, SN, TD, TG

EP 1427285

A1

20040616

EP 2002-775972

20020910

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK

PRIORITY APPLN. INFO.:

US 2001-323941P

P 20010921

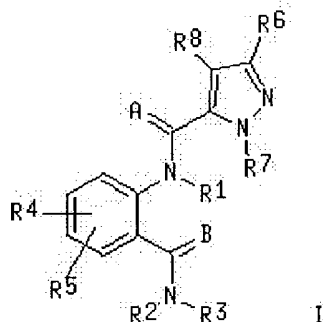
WO 2002-US30302

W 20020910

OTHER SOURCE(S):

MARPAT 138:267201

GI



AB An invertebrate pest control compn. for coating a propagule comprises (1) a biol. effective amt. of an anthranilamide compds. I (Markush included), an N-oxide thereof or an agriculturally suitable salt thereof, and (2) a film former or adhesive agent. Arthropodicidal compn. contg. anthranilamide compds. I may further comprise addnl. biol. active compds. selected from arthropodicides of the group consisting of pyrethroids, carbamates, neonicotinoids, neuronal sodium channel blockers, insecticidal macrocyclic lactones,  $\gamma$ -aminobutyric acid (GABA) antagonists, insecticidal ureas, and juvenile hormone mimics, and fungicides. The propagule is a seed of cotton, maize, soybean, rice, etc., or a rhizome, tuber, bulb or corm, or viable division thereof, of potato, sweet potato, garden onion, tulip, daffodil, crocus hyacinth, etc., or is a stem or leaf cutting.

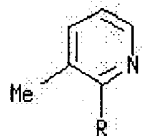
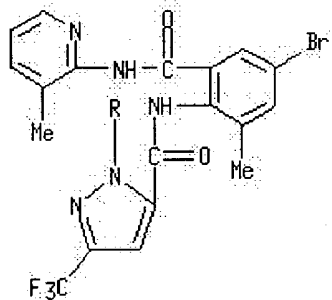
IT 500009-40-5

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(anthranilamide compds. as pesticides for plant propagation material)

RN 500009-40-5 HCAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-bromo-2-methyl-6-[(3-methyl-2-pyridinyl)amino]carbonyl]phenyl]-1-(3-methyl-2-pyridinyl)-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

2

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 22 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN



ACCESSION NUMBER:

2003:199730 HCAPLUS

DOCUMENT NUMBER:

138:337665

TITLE:

Weak C-H/ $\pi$  Interaction Participates in the  
Diastereoselectivity of a Host-Guest Complex in the  
Presence of Six Strong Hydrogen Bonds

AUTHOR(S):

Frontera, Antonio; Garau, Carolina; Quinonero, David;  
Ballester, Pablo; Costa, Antoni; Deya, Pere M.

CORPORATE SOURCE:

Departament de Quimica, Universitat de les Illes  
Balears, Palma de Mallorca, 07122, Spain

SOURCE:

Organic Letters (2003), 5(7), 1135-1138

CODEN: ORLEF7; ISSN: 1523-7060

PUBLISHER:

American Chemical Society

DOCUMENT TYPE:

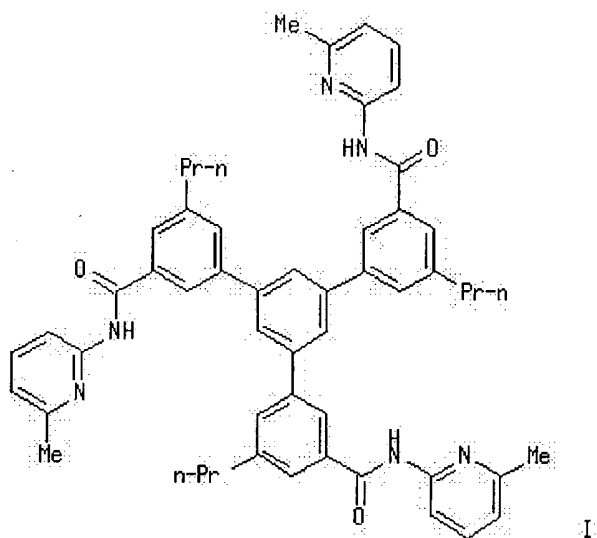
Journal

LANGUAGE:

English

GI





AB We report a study of the interaction between methylmethanetriacetic acid (MMTA) and a tripodal amidopyridine receptor 1 (I), where the geometry of the binding is in part governed by a weak C-H/ $\pi$  interaction in the presence of six strong N(O)-H $\cdots$ O(N) hydrogen bonds. There are two possible binding geometries for the 1:1 complex 1 $\cdot$ MMTA; combining computational and exptl. evidence we demonstrate that the endo binding mode is more favorable as the result of a C-H/ $\pi$  interaction.

IT **484052-54-2**

RL: PRP (Properties)

(H-bonding interactions and in-out stereoisomerism; weak C-H/ $\pi$  interaction participates in the diastereoselectivity of a host-guest complex in the presence of six strong hydrogen bonds)

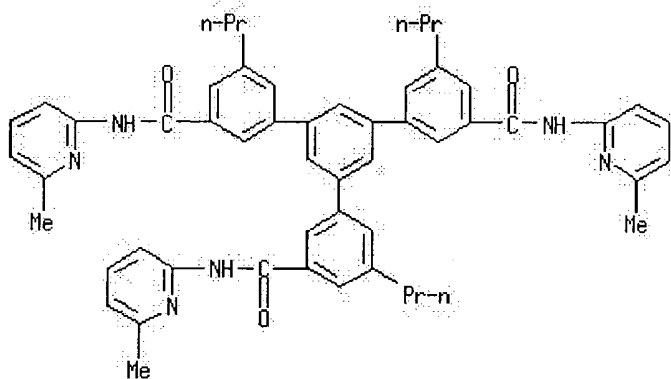
RN 484052-54-2 HCAPLUS

CN Pentanedioic acid, 3-(carboxymethyl)-3-methyl-, compd. with N,N'-bis(6-methyl-2-pyridinyl)-5'-[3-[[ (6-methyl-2-pyridinyl)amino]carbonyl]-5-propylphenyl]-5,5''-dipropyl[1,1':3',1''-terphenyl]-3,3''-dicarboxamide (1:1) (9CI) (CA INDEX NAME)

CM 1

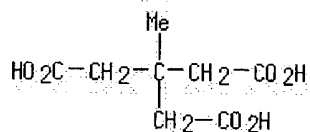
CRN 221021-04-1

CMF C54 H54 N6 O3



CM 2

CRN 85963-71-9  
CMF C8 H12 O6



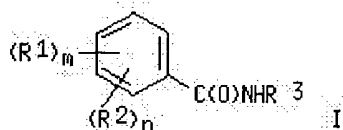
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 23 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  References

ACCESSION NUMBER: 2003:154243 HCAPLUS  
DOCUMENT NUMBER: 138:204839  
TITLE: Preparation of benzamides affecting glucokinase for combined treatment or prevention of type 2 diabetes and obesity  
INVENTOR(S): Boyd, Scott; Caulkett, Peter William Rodney; Hargreaves, Rodney Brian; Bowker, Suzanne Saxon; James, Roger; Johnstone, Craig; Jones, Clifford David; McKerrecher, Darren; Block, Michael Howard  
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.; Astrazeneca UK Limited  
SOURCE: PCT Int. Appl., 156 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003015774	A1	20030227	WO 2002-GB3745	20020815
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1420784	A1	20040526	EP 2002-755165	20020815
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
PRIORITY APPLN. INFO.:			SE 2001-2764	A 20010817
			WO 2002-GB3745	W 20020815
OTHER SOURCE(S):			MARPAT 138:204839	
GI				



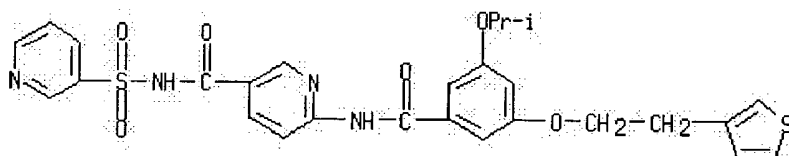
AB The invention relates to the use of benzamides (shown as I; variables defined below; e.g. 2-[[3,5-di(2-chlorobenzoyloxy)benzoyl]amino]thiazole) or a salt, solvate or prodrug thereof, in the prepn. of a medicament for the treatment or prevention of a disease condition mediated through glucokinase (GLK; no data), such as type 2 diabetes, and to the compds. I and methods for prepg. them. Twelve pharmaceutical compns. are included. For I: m is 0-2; n is 0-4; and n + m > 0; each R1 = OH, -(CH2)1-4OH, -CH3-aFa, -(CH2)1-44CH3-aFa, -OCH3-aFa, halo, C1-6alkyl, C2-6alkenyl, C2-6alkynyl, NH2, -NH-C1-4alkyl, -N-di(C1-4alkyl), CN, formyl, Ph or heterocyclyl optionally substituted by C1-6alkyl. Each R2 is the group Y-X- wherein each X is a linker = -O-Z-, -O-Z-O-Z-, -C(O)O-Z-, -OC(O)-Z-, -S-Z-, -SO-Z-, -SO2-Z-, -N(R6)-Z-, -N(R6)SO2-Z-, -SO2N(R6)-Z-, -(CH2)1-4-, -CH:CH-Z-, -C≡C-Z-, -N(R6)CO-Z-, -CON(R6)-Z-, -C(O)N(R6)S(O)2-Z-, -S(O)2N(R6)C(O)-Z-, -C(O)-Z-, -Z-, -C(O)-Z-O-Z-, -N(R6)-C(O)-Z-O-Z-, -O-Z-N(R6)-Z-, -O-C(O)-Z-O-Z- or a direct bond; each Z = a direct bond, C2-6alkenylene or -(CH2)p-C(R6a)2-(CH2)q-; each Y = aryl-Z1-, heterocyclyl-Z1-, C3-7cycloalkyl-Z1-, C1-6alkyl, C2-6alkenyl, C2-6alkynyl, -(CH2)1-4CH3-aFa or -CH(OH)CH3-aFa; R3 = Ph or a heterocyclyl; addnl. details are given in the claims. More than 30 example preps. of I are included and >300 specific examples of I are included with characterization data. For example, to prep. 2-[[3,5-di(2-chlorobenzoyloxy)benzoyl]amino]thiazole, diisopropylethylamine (2.0 mmol) then 4-dimethylaminopyridine (0.1 mmol) were added to a soln. of 2-aminothiazole (1.0 mmol) and 3,5-di(2-chlorobenzoyloxy)benzoic acid chloride (1.0 mmol) in CH2Cl2 (10 mL) under Ar at ambient temp. After 80 mins the reaction mixt. was filtered, washed with CH2Cl2 and dried under high vacuum to give the title compd. as a colorless solid (41%).

IT **499991-30-9P**, N-(5-(((Pyridin-3-yl)sulfonyl)amino)carbonyl)pyridin-2-yl)-3-isopropoxy-5-(2-(thien-3-yl)ethoxy)benzamide  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; prepn. of benzamides affecting glucokinase for combined treatment or prevention of type 2 diabetes and obesity)

RN **499991-30-9** HCAPLUS

CN 3-Pyridinecarboxamide, 6-[[3-(1-methylethoxy)-5-[2-(3-thienyl)ethoxy]benzoyl]amino]-N-(3-pyridinylsulfonyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 24 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text References

ACCESSION NUMBER: 2003:154154 HCAPLUS  
 DOCUMENT NUMBER: 138:200331

TITLE: Method for controlling particular insect pests by applying anthranilamide compounds

INVENTOR(S): Lahm, George Philip; McCann, Stephen Frederick; Patel, Kanu Maganbhai; Selby, Thomas Paul; Stevenson, Thomas Martin

PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA

SOURCE: PCT Int. Appl., 150 pp.  
CODEN: PIXXD2

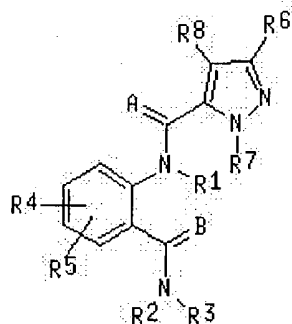
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>WO 2003015518</u>	A1	20030227	<u>WO 2002-US25613</u>	20020813
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
<u>EP 1416796</u>	A1	20040512	<u>EP 2002-752809</u>	20020813
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
PRIORITY APPLN. INFO.:			<u>US 2001-311919P</u>	P 20010813
			<u>US 2001-324173P</u>	P 20010921
			<u>WO 2002-US25613</u>	W 20020813
OTHER SOURCE(S):		MARPAT 138:200331		
GI				



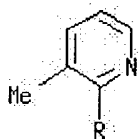
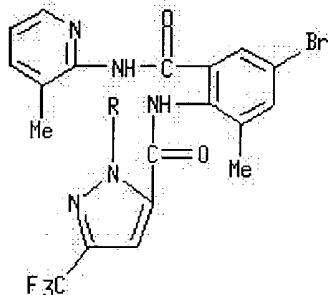
AB Anthranilamide compds. I (Markush included), N-oxides or an agriculturally suitable salts thereof are prepd. as insecticides for controlling lepidopteran, homopteran, hemipteran, thysanopteran and coleopteran insect pests. Insecticidal compn. contg. anthranilamide compds. I may further comprise addnl. biol. active compds. selected from arthropodicides of the group consisting of pyrethroids, carbamates, neonicotinoids, neuronal sodium channel blockers, insecticidal macrocyclic lactones,  $\gamma$ -aminobutyric acid (GABA) antagonists, insecticidal ureas, and juvenile hormone mimics.

IT 500009-40-5

RI: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)  
(anthranilamide compds. as insecticides)

RN 500009-40-5 HCAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-bromo-2-methyl-6-[[ (3-methyl-2-pyridinyl)amino]carbonyl]phenyl]-1-(3-methyl-2-pyridinyl)-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 25 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
References

ACCESSION NUMBER: 2003:5785 HCAPLUS  
DOCUMENT NUMBER: 138:73180  
TITLE: Preparation of amino-nicotinate derivatives for therapeutic use as glucokinase (GLK) modulators  
INVENTOR(S): Hayter, Barry Raymond; Currie, Gordon Stuart; Hargreaves, Rodney Brian; James, Roger; Jones, Clifford David; Mckerrecher, Darren; Allen, Joanne Victoria; Caulkett, Peter William Rodney; Johnstone, Craig; Gaskin, Harold  
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.; Astrazeneca UK Limited  
SOURCE: PCT Int. Appl., 110 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003000267	A1	20030103	WO 2002-GB2873	20020624

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,

TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,  
CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,  
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1404335 A1 20040407 EP 2002-740900 20020624

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

BR 2002010711 A 20040720 BR 2002-10711 20020624

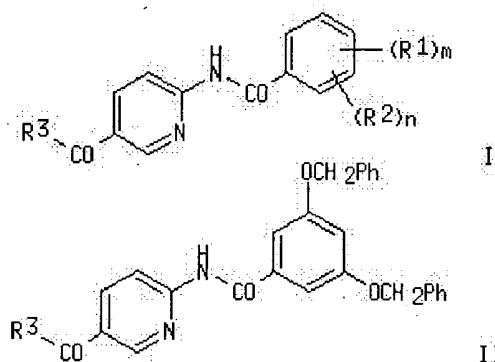
PRIORITY APPLN. INFO.:

SE 2001-2300 A 20010626

WO 2002-GB2873 W 20020624

OTHER SOURCE(S): MARPAT 138:73180

GI



AB Aminonicotinates, such as I [R1 = H, OH, (CH2)1-4OH, NO2, NH2, haloalkyl, haloalkyloxy, alkyl, alkenyl, alkylamino, etc.; R2 = X-Y; X = linking group, such as O, CO, amino, Z-O-Z, etc; Z = alkylene, alkenylene, etc.; R3 = OH, alkoxy, alkylamino, etc.; m = 0-2; n = 0-4; m + n > 0], were prepd. for pharmaceutical use in the treatment of diseases or conditions mediated through glucokinase (GLK), such as type 2 diabetes. Thus, nicotinic acid deriv. II (R3 = OH) was prepd. by treatment of 3,5-dibenzyloxybenzoic acid with oxalyl chloride in CH2Cl2 and DMF followed by addn. of Me 6-aminonicotinate to the reaction mixt. form ester II (R3 = OMe) in 57% yield and subsequent hydrolysis of the ester using LiOH in THF/H2O to give the desired acid in 17% yield. The prepd. compds. were assayed for their effect on GLK activity, and pharmaceutical compns. of the prepd. compds. were presented.

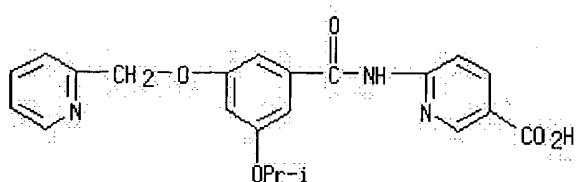
IT 480463-03-4P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of amino nicotinate derivs. for therapeutic use as glucokinase (GLK) modulators)

RN 480463-03-4 HCAPLUS

CN 3-Pyridinecarboxylic acid, 6-[[3-(1-methylethoxy)-5-(2-pyridinylmethoxy)benzoyl]amino]- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

4

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

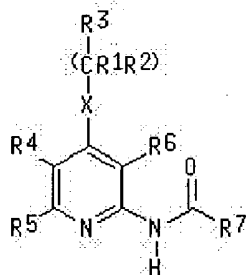
L12 ANSWER 26 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text	Chemical References
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ACCESSION NUMBER: 2002:927405 HCAPLUS  
 DOCUMENT NUMBER: 138:14017  
 TITLE: Preparation of aminoquinoline and aminopyridine derivatives and their use as adenosine a3 ligands  
 INVENTOR(S): Aranyi, Peter; Balazs, Laszlo; Balogh, Maria; Bata, Imre; Batori, Sandor; Nagy, Lajos T.; Timari, Geza; Boer, Kinga; Finance, Olivier; Kapui, Zoltan; Mikus, Endre; Szamosvoelgyi, Zsuzsanna; Szeleczky, Gabor; Urban-szabo, Katalin  
 PATENT ASSIGNEE(S): Sanofi-Synthelabo, Fr.  
 SOURCE: PCT Int. Appl., 51 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>WO 2002096879</u>	A1	20021205	<u>WO 2002-HU48</u>	20020529
<u>WO 2002096879</u>	C2	20031120		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
<u>EE 200300574</u>	A	20040216	<u>EE 2003-574</u>	20020529
<u>EP 1390349</u>	A1	20040225	<u>EP 2002-732985</u>	20020529
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
<u>BR 2002009719</u>	A	20040727	<u>BR 2002-9719</u>	20020529
PRIORITY APPLN. INFO.:			<u>HU 2001-2279</u>	A 20010531
			<u>HU 2002-774</u>	A 20020301
			<u>WO 2002-HU48</u>	W 20020529

OTHER SOURCE(S): MARPAT 138:14017  
 GI



AB Aminoquinoline and aminopyridine derivs. [I; wherein R1, R2, independently = H, (branched) (C1-C4)alkyl; R3 = H, (branched) (C1-C4)alkyl, Ph, thienyl, furyl, etc.; R4, R5, independently = H or form together a 1,3-butadienyl group, optionally substituted by methylenedioxy or one or more (branched) (C1-4)alkyl, (C1-C4)alkoxy, hydroxy, halogens; R6 = H, CN, aminocarbonyl, (C1-C4)alkoxycarbonyl, carboxy; R7 = H, (branched) (C1-C4)alkyl, Ph, benzyl, thienyl, furyl, etc.; X = CH2, N, alkylamino, S, O, etc.] were prepd. For example, 3-methyl-N-(4-benzylamino-3-cyanoquinolin-2-yl)benzamide was prepd. by a multistep synthetic procedure. The prepd. compds. are strong adenosine A3 receptor ligands (Ki values in human adenosine A3 receptor binding studies are between 0.19 and 0.69 nM).

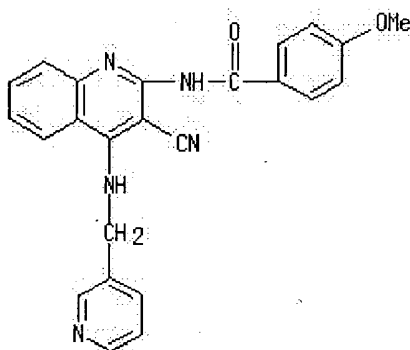
IT 477707-39-4P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of aminoquinoline and aminopyridine derivs. and their use as adenosine a3 ligands)

RN 477707-39-4 HCAPLUS

CN Benzamide, N-[3-cyano-4-[(3-pyridinylmethyl)amino]-2-quinolinyl]-4-methoxy-(9CI) (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 27 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text References

ACCESSION NUMBER: 2002:870405 HCAPLUS  
DOCUMENT NUMBER: 138:89381  
TITLE: Dual Binding Mode of Methylmethanetriacetic Acid to Tripodal Amidopyridine Receptors  
AUTHOR(S): Ballester, Pablo; Capo, Magdalena; Costa, Antoni; Deya, Pere M.; Gomila, Rosa; Decken, Andreas; Deslongchamps, Ghislain  
CORPORATE SOURCE: Departament de Quimica, Universitat de les Illes Balears, Palma de Mallorca, 07071, Spain  
SOURCE: Journal of Organic Chemistry (2002), 67(25), 8832-8841  
CODEN: JOCEAH; ISSN: 0022-3263  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 138:89381

AB A series of tripodal amidopyridine receptors capable of selective recognition of methylmethanetriacetic acid (MMTA) in org. solvents is described. Intramol. hydrogen-bonding groups, built into some of the receptors, were designed as preorganization devices. Binding was studied



by NMR titrn., variable temp. NMR expts., 2D-NMR, isothermal titrn. calorimetry, and single-crystal X-ray crystallog. The results reveal that a balancing act between inter- and intramol. hydrogen-bonding interactions in the complexes governs both the dynamics and the geometry of binding. Receptor 1b (without intramol. hydrogen-bonding groups) features a simple sym. MMTA binding geometry with optimal enthalpic interactions. In sharp contrast, receptor 1a (with intramol. hydrogen-bonding groups) reveals a temp.-dependent dual binding mode where MMTA can bind in two completely different geometries. The two soln. binding geometries of 1a·MMTA were unraveled by NMR expts. and correlated to the X-ray structures.

IT 484052-53-1

RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)

(crystal structure and mol. structure; dual binding mode of methylmethanetriacetic acid to tripodal amidopyridine receptors)

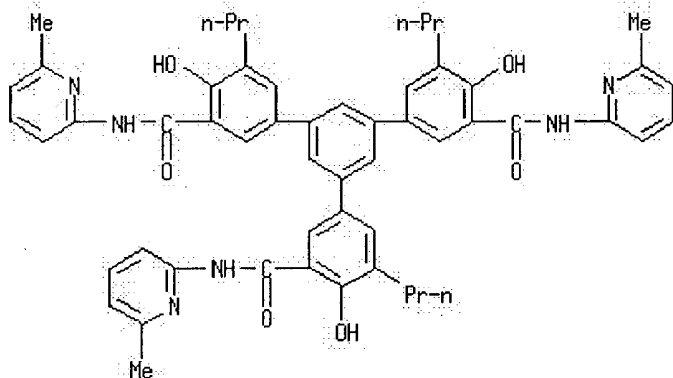
RN 484052-53-1 HCAPLUS

CN Pentanedioic acid, 3-(carboxymethyl)-3-methyl-, compd. with 4,4''-dihydroxy-5'-[4-hydroxy-3-[(6-methyl-2-pyridinyl)amino]carbonyl]-5-propylphenyl]-N,N'-bis(6-methyl-2-pyridinyl)-5,5''-dipropyl[1,1':3',1''-terphenyl]-3,3''-dicarboxamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 157460-60-1

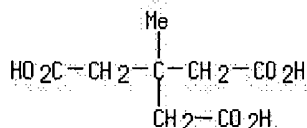
CMF C54 H54 N6 O6



CM 2

CRN 85963-71-9

CMF C8 H12 O6



REFERENCE COUNT:

34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 28 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text ☐ ☒ References

ACCESSION NUMBER: 2002:868928 HCAPLUS

DOCUMENT NUMBER: 137:352900

TITLE: Selective anthranilamide pyridine amides as inhibitors of VEGFR-2 and VEGFR-3

INVENTOR(S): Ernst, Alexander; Huth, Andreas; Krueger, Martin; Thierauch, Karl-Heinz; Menrad, Andreas; Haberey, Martin

PATENT ASSIGNEE(S): Schering Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 115 pp.  
CODEN: PIXXD2

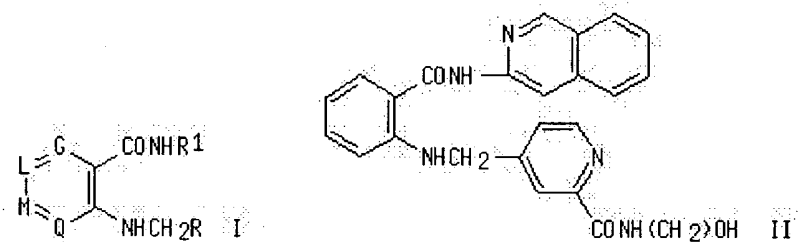
DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002090352	A2	20021114	WO 2002-EP4924	20020503
WO 2002090352	A3	20030501		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10123574	A1	20021128	DE 2001-10123574	20010508
DE 10125294	A1	20021121	DE 2001-10125294	20010515
DE 10164590	A1	20030710	DE 2001-10164590	20011221
EP 1392680	A2	20040303	EP 2002-735333	20020503
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2002009485	A	20040706	BR 2002-9485	20020503
PRIORITY APPLN. INFO.:				
			DE 2001-10123574	A 20010508
			DE 2001-10125294	A 20010515
			DE 2001-10164590	A 20011221
			WO 2002-EP4924	W 20020503
OTHER SOURCE(S): MARPAT 137:352900				
GI				



AB Title compds. I [G, L, M, Q = N, (un)substituted CH,  $\leq 1$  of them being N; R = (un)substituted N heterocycle; R<sub>1</sub> = (un)substituted alkyl, alkenyl, cycloalkyl, cycloalkenyl, aryl, heteroaryl] were prepd. I are inhibitors of VEGFR-2 and VEGFR-3 and are used as medicaments for treating diseases that are caused by persistent angiogenesis, such as psoriasis, Kaposi's sarcoma, restenosis, such as e.g. stent-induced restenosis, endometriosis, Crohn's disease, Hodgkin's disease, leukemia, arthritis,

such as rheumatoid arthritis, hemangioma, angiofibromatosis, in eye diseases such as diabetic retinopathy, neovascular glaucoma, in kidney diseases such as glomerulonephritis, diabetic nephropathy, malign nephrosclerosis, thrombic micro-angiopathic syndrome, transplant rejection and glomerulopathy, in fibrotic diseases such as hepatic cirrhosis, mesangial-cell proliferative diseases, arteriosclerosis, damage to the nerve tissue and inhibition of the re-occlusion of vessels after balloon catheter treatment, in vessel prosthetics or after the use of mech. devices for keeping vessels open, e.g. stents, as immunosuppressants, to support wound healing without scars and in cases of age spots and contact dermatitis. I can also be used as inhibitors of VEGFR-3 in lymphangiogenesis for hyperplastic and dysplastic changes in the lymphatic system. Thus, 2-amino-N-isoquinolin-3-ylbenzamide was treated with 2-bromo-5-pyridinecarboxaldehyde, followed by carboxylation and amidation to give the amide II. II had IC50 for inhibition of VEGFR-2 of 40 nM and for inhibition of cytochrome 450 isoenzyme 2C9 of 2.9  $\mu$ M.

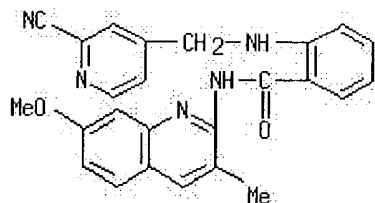
IT **474799-55-8P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of isoquinolinylcarbamoylphenylaminomethylpyridinecarboxamides as VEGFR-2 and VEGFR-3 inhibitors)

RN **474799-55-8** HCAPLUS

CN Benzamide, 2-[[ (2-cyano-4-pyridinyl)methyl]amino]-N-(7-methoxy-3-methyl-2-quinolinyl)- (9CI) (CA INDEX NAME)



L12 ANSWER 29 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN



ACCESSION NUMBER: 2002:846211 HCAPLUS  
 DOCUMENT NUMBER: 138:378554  
 TITLE: Six-membered cyclic ureas as HIV-1 protease inhibitors: A QSAR study based on CODESSA PRO approach  
 AUTHOR(S): Katritzky, Alan R.; Oliferenko, Alexander; Lomaka, Andre; Karelson, Mati  
 CORPORATE SOURCE: Department of Chemistry, Center for Heterocyclic Compounds, University of Florida, Gainesville, FL, 32611-7200, USA  
 SOURCE: Bioorganic & Medicinal Chemistry Letters (2002), 12(23), 3453-3457  
 CODEN: BMCLE8; ISSN: 0960-894X  
 PUBLISHER: Elsevier Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Quant. structure-activity relationships (QSAR) for HIV-1 protease inhibitory activity of substituted tetrahydropyrimidinones have been produced using CODESSA PRO methodol. and software. The best four-parameter equation ( $R^2_{cv} = 0.847$ ) allowed us to reveal two main structural factors which are strongly correlated with the title activity: mol. hydrophobicity and ability to form hydrogen bonds with the target enzyme.

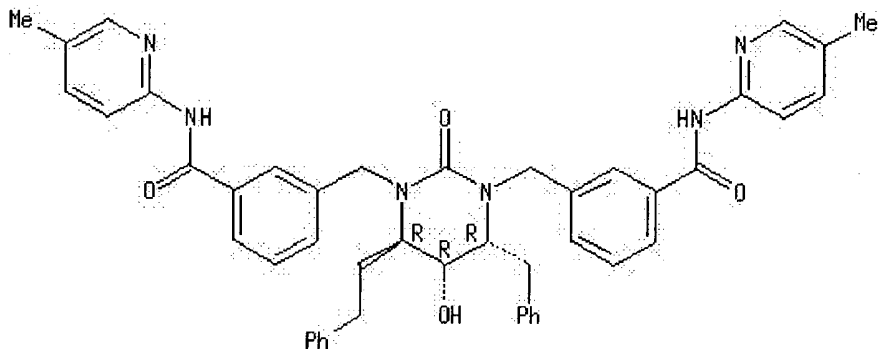
IT **219941-25-0**

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(QSAR study of cyclic ureas as HIV-1 protease inhibitors)

RN 219941-25-0 HCAPLUS

CN Benzamide, 3,3'-[[ (4R,5R,6R)-dihydro-5-hydroxy-2-oxo-4-(2-phenylethyl)-6-(phenylmethyl)-1,3(2H,4H)-pyrimidinediyl]bis(methylene)]bis[N-(5-methyl-2-pyridinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 30 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full  
Text

ACCESSION NUMBER: 2002:841257 HCAPLUS

DOCUMENT NUMBER: 138:4333

TITLE: Recognition of heteroaromatic molecular tweezers involving multiple hydrogen-bonding sites for neutral molecules

AUTHOR(S): Mu, Qi-Ming; Zhao, Zhi-Ming; Chen, Shu-Hua

CORPORATE SOURCE: Faculty of Chemistry, Sichuan University, Chengdu, 610064, Peop. Rep. China

SOURCE: Huaxue Xuebao (2002), 60(10), 1841-1845  
CODEN: HHHPA4; ISSN: 0567-7351

PUBLISHER: Kexue Chubanshe

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB Six mol. tweezers have been synthesized based on the incorporation of multiple hydrogen-bonding groups into the cleft to provide both orientation and selective complexation of substrate. Mol. recognition properties of these receptors for barbiturate, urea, diphenylmethanone and glutarimide have been investigated by UV-visible spectroscopic titrn., which indicates that the supramol. complexes consist of 1:1 host and guest mols. The main driving forces are the multiple hydrogen bonding in mol. recognition. The mol. recognition ability is discussed from the viewpoint of the size/shape-fit and geometrical complementary relationship. Computer-aided study and <sup>1</sup>H NMR spectroscopy have been employed to elucidate the binding behavior of these mol. tweezers.

IT 476688-57-0

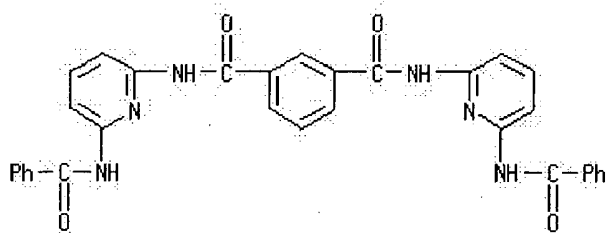
RL: FMU (Formation, unclassified); FORM (Formation, nonpreparative)  
(recognition of heteroarom. mol. tweezers involving multiple hydrogen-bonding sites for neutral mols.)

RN 476688-57-0 HCAPLUS

CN 1,3-Benzenedicarboxamide, N,N'-bis[6-(benzoylamino)-2-pyridinyl]-, compd. with urea (1:1) (9CI) (CA INDEX NAME)

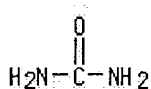
CM 1

CRN 425377-08-8  
 CMF C32 H24 N6 O4



CM 2

CRN 57-13-6  
 CMF C H4 N2 O



L12 ANSWER 31 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text	References
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ACCESSION NUMBER: 2002:826868 HCAPLUS  
 DOCUMENT NUMBER: 138:39343  
 TITLE: Synthesis and Investigation of New Macrocyclic Diphosphine-Palladium(0) Complexes Based on the Barbiturate Binding Receptor  
 AUTHOR(S): Sorensen, Hanne S.; Larsen, Jens; Rasmussen, Brian S.; Laursen, Bolette; Hansen, Signe G.; Skrydstrup, Troels; Amatore, Christian; Jutand, Anny  
 CORPORATE SOURCE: Department of Chemistry, University of Aarhus, Aarhus, 8000, Den.  
 SOURCE: Organometallics (2002), 21(24), 5243-5253  
 CODEN: ORGND7; ISSN: 0276-7333  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 138:39343

AB A series of diphosphine ligands possessing a barbiturate-binding receptor, isophthaloylbis(2,6-diaminopyridine) were synthesized with the goal of prepg. new palladium(0) complexes for the auxiliary directed regioselective Heck arylation, which position the alkene with respect to the metal center and thereby control the regioselectivity of the insertion step. Some of the diphosphines prepd. were found to efficiently form macrocyclic bisphosphine palladium(0) complexes even though a 26-membered cycle is produced. A significant solvent effect for the oxidative addn. of the Pd0 complexes with Ph iodide was noted in the case of one of the diphosphine ligands, which was accounted for the ability of the ligand complexed to Pd0 to possess different conformations in the tested solvents, which affects on the diphosphine bite angle. The receptors possessing an isophthaloyl connector bind barbitol with affinities corresponding to those of the previously reported open receptors. However, upon complexation with Pd(dba)2, none of the bidentate ligands revealed a capacity to bind barbitol, reflecting again the conformational

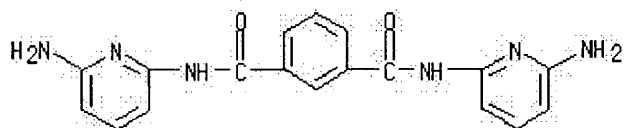
changes that occur upon coordination to Pd0. The new palladium(0) complexes were tested for their ability to promote the Heck reaction between aryl iodides, bromides and chloride and Bu acrylate, providing catalytic activity comparable or better than that of the PPh3 ligand.

IT **112817-57-9**

RL: RCT (Reactant); RACT (Reactant or reagent)  
(acylation; prepn. of barbiturate-recognizing diphosphines and their macrocyclic palladium complexes as catalysts for auxiliary directed regioselective Heck arylation of alkenes)

RN **112817-57-9** HCAPLUS

CN **1,3-Benzenedicarboxamide, N,N'-bis(6-amino-2-pyridinyl)- (9CI)** (CA INDEX NAME)



REFERENCE COUNT: 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

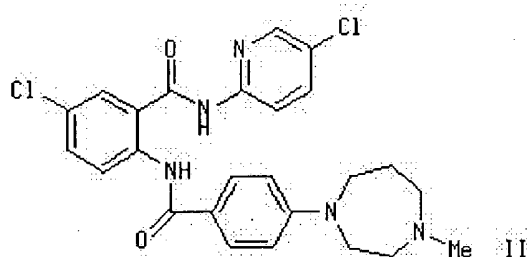
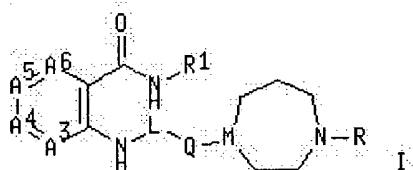
L12 ANSWER 32 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text Cited References

ACCESSION NUMBER: 2002:637656 HCAPLUS  
DOCUMENT NUMBER: 137:169553  
TITLE: Preparation of substituted benzoylaminocarboxamides as inhibitors of factor Xa  
INVENTOR(S): Herron, David Kent; Joseph, Sajan; Marquart, Angela Lynn; Masters, John Joseph; Mendel, David; Smith, Gerald Floyd; Waid, Philip Parker; Wiley, Michael Robert; Yee, Ying Kwong  
PATENT ASSIGNEE(S): Eli Lilly and Company, USA  
SOURCE: PCT Int. Appl., 116 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002064567	A2	20020822	WO 2001-US42941	20011114
WO 2002064567	C1	20031218		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1379506	A2	20040114	EP 2001-273729	20011114
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2004058959	A1	20040325	US 2003-415756	20030430
PRIORITY APPLN. INFO.:				
			US 2000-253501P	P 20001128
			WO 2001-US42941	W 20011114

OTHER SOURCE(S): MARPAT 137:169553  
GI



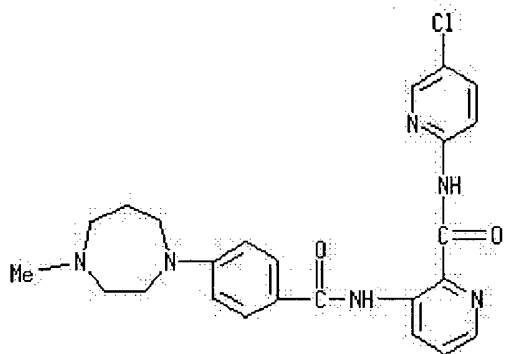
AB Title compds. I [R1 = (un)substituted 2-pyridinyl, 3-pyridinyl, Ph, 6-indolyl, 6-indazolyl; A3-6 together with the two carbons to which they are attached, complete a (un)substituted benzene, heteroarom., etc.; L = CO, methylene; M = N; Q = substituted Ph, cyclohexan-1,4-diyl, piperidin-1,4-diyl; R = H, alkyl, cycloalkyl, acyl, acetyloxyacetyl, aminoacetyl, hydroxyacetyl, alkoxycarbonyl, alkoxycarbonylmethyl, etc.] were prepd. For example, 5-Chloro-2-nitro-N-(5-chloropyridin-2-yl)benzamide (prepn. given) was reduced to the corresponding aniline (MeOH, NaBH<sub>4</sub>) and acylated with 4-fluorobenzoyl chloride (CH<sub>2</sub>Cl<sub>2</sub>, pyridine). This intermediate was reacted with 1-methylhexahydro-1,4-diazepine (DMSO, 90°, 24 h) to afford II. I are inhibitors of factor Xa and used to produce an anticoagulant or antithrombotic effect.

IT **448933-91-3P**, 3-[4-(4-Methylhexahydro-1,4-diazepin-1-yl)benzoylamino]-N-(5-chloropyridin-2-yl)pyridine-2-carboxamide  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(factor Xa inhibitor; prepn. of substituted benzoylamino-carboxamides as inhibitors of factor Xa)

RN **448933-91-3** HCAPLUS

CN 2-Pyridinecarboxamide, N-(5-chloro-2-pyridinyl)-3-[[4-(hexahydro-4-methyl-1H-1,4-diazepin-1-yl)benzoyl]amino]- (9CI) (CA INDEX NAME)

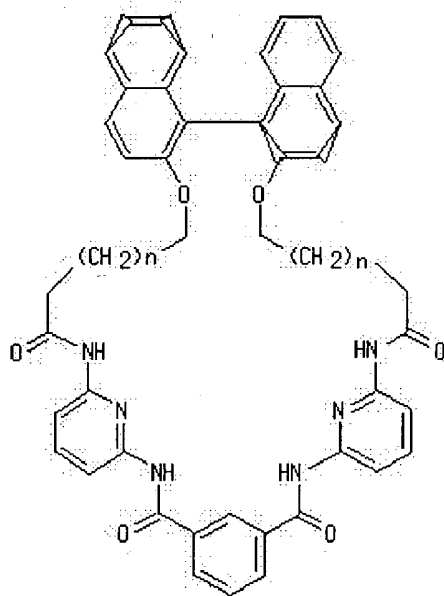


L12 ANSWER 33 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full  
Text

Citing  
References

ACCESSION NUMBER: 2002:517330 HCAPLUS  
 DOCUMENT NUMBER: 138:89785  
 TITLE: Synthesis and binding properties of chiral macrocyclic barbiturate receptors: application to nitrile oxide cyclizations  
 AUTHOR(S): Rasmussen, Brian S.; Elezcano, Unai; Skrydstrup, Troels  
 CORPORATE SOURCE: Department of Chemistry, University of Aarhus, Aarhus, 8000, Den.  
 SOURCE: Journal of the Chemical Society, Perkin Transactions 1 (2002), (14), 1723-1733  
 CODEN: JCSPCE; ISSN: 1472-7781  
 PUBLISHER: Royal Society of Chemistry  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 138:89785  
 GI



I

AB A series of chiral macrocyclic receptors I [ $n = 0-2$ ,  $R = H$ ;  $n = 3$ ,  $R =$

h

eb c

g cg b

cg

eb



2-naphthyl], contg. a barbiturate binding domain, has been synthesized with the purpose of exploiting these for asym. 1,3-dipolar cycloaddns. Analogs with a modified deoxycholate moiety were similarly prepd. All the hosts with the exception of one effectively bind a barbiturate-cinnamic acid conjugate with assocn. consts. in the order of  $10^4$  M<sup>-1</sup> in CDCl<sub>3</sub>. The 1,3-dipolar cycloaddn. between several aryl nitrile oxides and the cinnamate conjugates were examd. in the presence of stoichiometric amts. of a chiral receptor affording two regioisomeric isoxazolines. Enantiomeric excesses of up to 30% were obtained in one case for the major regioisomer. In most cases, the enantiomeric excesses could be measured directly from the crude <sup>1</sup>H-NMR spectra owing to the diastereomeric interaction between the isoxazoline cycloadduct and the chiral receptor. The relatively low enantiofacial selectivities at the C:C double bond of the cinnamate were attributed to the non-planar orientation of the barbiturate-cinnamate conjugate with respect to the receptor, as previously noted for the binding of barbital to an achiral macrocyclic host, directing the cinnamate unit away from the chiral unit.

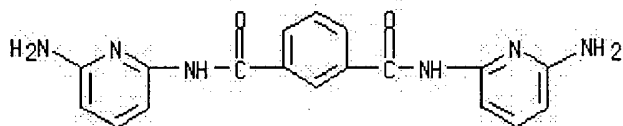
IT 112817-57-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of macrocyclic barbiturate-contg. receptors as catalysts for asym. nitrile oxide cyclizations)

RN 112817-57-9 HCAPLUS

CN 1,3-Benzenedicarboxamide, N,N'-bis(6-amino-2-pyridinyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 64 THERE ARE 64 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 34 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN



ACCESSION NUMBER: 2002:428907 HCAPLUS  
 DOCUMENT NUMBER: 137:6180  
 TITLE: Preparation of 1,4,5,6-tetrahydroimidazo[4,5-d]benzazepine derivatives as vasopressin antagonists  
 INVENTOR(S): Koshio, Hiroyuki; Kakefuda, Akio; Sato, Ippei; Wakayama, Ryutaro; Sanagi, Masanao  
 PATENT ASSIGNEE(S): Yamanouchi Pharmaceutical Co., Ltd., Japan  
 SOURCE: PCT Int. Appl., 37 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002044179	A1	20020606	WO 2001-JP10328	20011127
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

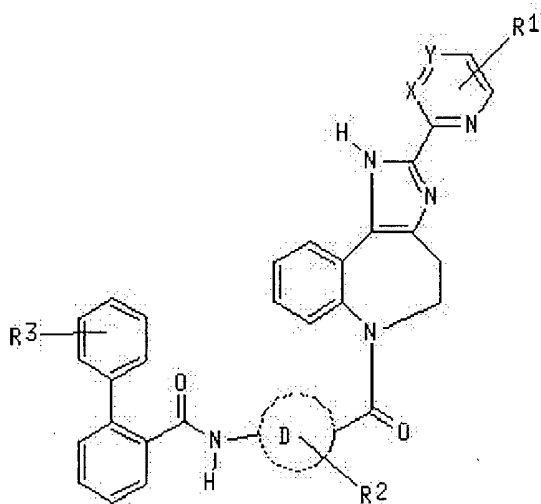
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,  
 CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,  
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

<u>AU 2002024115</u>	A5	20020611	<u>AU 2002-24115</u>	20011127
<u>JP 2002226480</u>	A2	20020814	<u>JP 2001-361126</u>	20011127
<u>EP 1338597</u>	A1	20030827	<u>EP 2001-998171</u>	20011127

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

<u>US 2004034012</u>	A1	20040219	<u>US 2003-432732</u>	20030527
<u>PRIORITY APPLN. INFO.:</u>			<u>JP 2000-360809</u>	A 20001128
			<u>WO 2001-JP10328</u>	W 20011127

OTHER SOURCE(S):           MARPAT 137:6180  
 GI



AB The title compds. I [ring D = phenylene, etc.; X, Y = CH, N; R1 - R3 = H, halo, etc.] are prepd. In an in vitro V1A receptor binding assay, compds. of this invention showed the pKi values of 8.12 to 8.71.

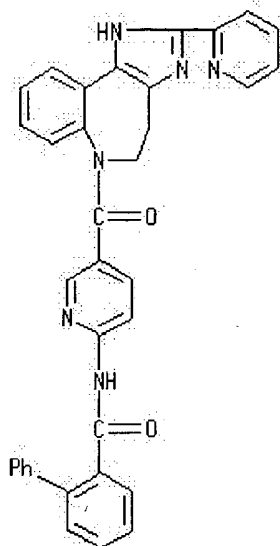
IT **433263-38-8P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of tetrahydroimidazobenzazepine derivs. as vasopressin antagonists)

RN 433263-38-8 HCAPLUS

CN [1,1'-Biphenyl]-2-carboxamide, N-[5-[[4,5-dihydro-2-(2-pyridinyl)imidazo[4,5-d][1]benzazepin-6(1H)-yl]carbonyl]-2-pyridinyl]-, monohydrochloride (9CI) (CA INDEX NAME)



# HCl

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

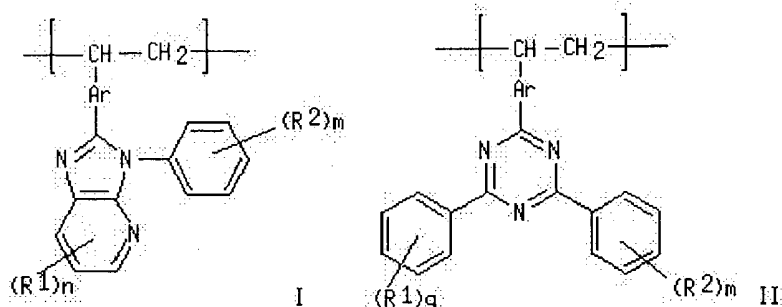
L12 ANSWER 35 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

**FULL**  
Text

**CITED**  
References

ACCESSION NUMBER: 2002:354001 HCAPLUS  
DOCUMENT NUMBER: 136:377202  
TITLE: Light-emitting device and material therefor  
INVENTOR(S): Okada, Hisashi; Ise, Toshihiro; Mishima, Masayuki; Taguchi, Toshiki  
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
SOURCE: U.S. Pat. Appl. Publ., 91 pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>US 2002055014</u>	A1	20020509	<u>US 2001-935711</u>	20010824
<u>JP 2002319491</u>	A2	20021031	<u>JP 2001-236419</u>	20010803
<u>PRIORITY APPLN. INFO.:</u>			<u>JP 2000-254171</u>	A 20000824
			<u>JP 2001-38718</u>	A 20010215
			<u>JP 2001-236419</u>	A 20010803
OTHER SOURCE(S):		MARPAT 136:377202		
GI				



AB Light-emitting devices comprising a pair of electrodes formed on a substrate and org. compd. layers comprising a light-emitting layer provided in between the electrodes are described in which  $\geq 1$  of the org. compd. layers comprises a heterocyclic compd. having  $\geq 2$  atoms and a phosphorescent compd.; polymers with repeating units described by the general formulas I and II (Ar = arylene or divalent heterocyclic group; R1 and R2 = independently selected H or substituent; n = 0-3; q = 0-5; and m = 0-5), which may be employed as the heterocyclic compds. in the devices, are also described. The devices may also employ polymers of heterocyclic compds. from which AR is absent. The phosphorescent compd. may be an org. metal complex.

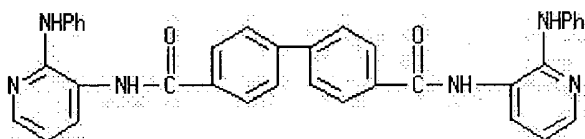
IT 377092-01-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(light-emitting devices with emitting layers including heterocyclic compds. and phosphorescent materials and heterocycle deriv. polymers for them)

RN 377092-01-8 HCAPLUS

CN [1,1'-Biphenyl]-4,4'-dicarboxamide, N,N'-bis[2-(phenylamino)-3-pyridinyl]- (9CI) (CA INDEX NAME)



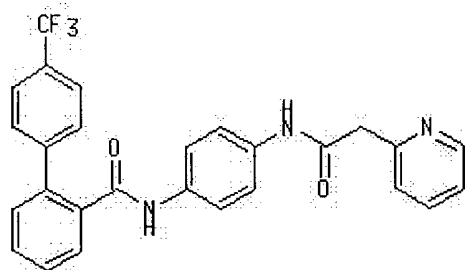
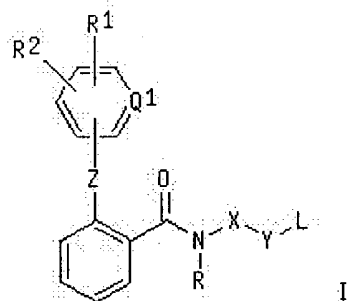
L12 ANSWER 36 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

**Full Text** **Cited References**

ACCESSION NUMBER: 2002:275966 HCAPLUS  
 DOCUMENT NUMBER: 136:294739  
 TITLE: Preparation of pyridinyl-substituted benzamides as Apo B secretion inhibitors  
 INVENTOR(S): Takasugi, Hisashi; Terasawa, Takeshi; Inoue, Yoshikazu; Nakamura, Hideko; Nagayoshi, Akira; Ohtake, Hiroaki; Furukawa, Yoshiro; Mikami, Masafumi; Hinoue, Kazumasa; Ohtsubo, Makoto  
 PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd., Japan; Daiso Co., Ltd.  
 SOURCE: PCT Int. Appl., 266 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>WO 2002028835</u>	A1	20020411	<u>WO 2001-JP8581</u>	20010928
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
<u>AU 2001092315</u>	A5	20020415	<u>AU 2001-92315</u>	20010928
<u>EP 1326835</u>	A1	20030716	<u>EP 2001-972612</u>	20010928
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
<u>BR 2001014657</u>	A	20030930	<u>BR 2001-14657</u>	20010928
<u>JP 2004510763</u>	T2	20040408	<u>JP 2002-532421</u>	20010928
<u>NZ 525591</u>	A	20040430	<u>NZ 2001-525591</u>	20010928
<u>NO 2003001540</u>	A	20030605	<u>NO 2003-1540</u>	20030404
<u>US 2004058903</u>	A1	20040325	<u>US 2003-381737</u>	20030903
RITY APPLN. INFO.:			<u>AU 2000-583</u>	A 20001005
			<u>AU 2001-6666</u>	A 20010727
			<u>WO 2001-JP8581</u>	W 20010928

OTHER SOURCE(S): MARPAT 136:294739  
GI



AB Title compds. I [wherein R1 and R2 = independently alkyl, alkenyl, acyl, amino, (cyclo)alkoxy, aryl(oxy), sulfoxy, mercapto, sulfo, H, halo, NO<sub>2</sub>, CN, or OH; or R1R2 = a ring; Q1 = N or CH; L = (un)substituted unsatd. 3 to 10-membered heterocyclic group; X = (un)substituted monocyclic (hetero)arylene; Y = (A1)<sub>m</sub>(A2)<sub>n</sub>(A4)<sub>k</sub>; Z = direct bond, CH<sub>2</sub>, NH, or O; R = H or alkyl; A1 = (un)substituted alkylene or alkenylene; A2 = NR<sub>3</sub>, CONR<sub>3</sub>, NHCONH, CO<sub>2</sub>, O, O(CH<sub>2</sub>)<sub>2</sub>NR<sub>3</sub>, S, SO, or SO<sub>2</sub>; A4 = alkylene, alkenylene, or alkynylene; R<sub>3</sub> = H or suitable substituent; k, m, and n = independently 0 or 1; or a salt thereof] were prepd. as apolipoprotein B (Apo B) secretion

inhibitors. For example, to a suspension of N-(4-aminophenyl)-4'-(trifluoromethyl)-1,1'-biphenyl-2-carboxamide, 2-pyridinylacetic acid•HCl, and HOBT•H<sub>2</sub>O in CH<sub>2</sub>Cl<sub>2</sub> was added to WSC•HCl, followed by TEA at 5°C. The mixt. was stirred at room temp. for 24 h and worked up to give II. The latter inhibited Apo B secretion by 100% at 10<sup>-6</sup> M in HepG2 cells and lowered cholesterol by 83% and triglyceride by 35% after 2 h at a dose of 32 mg/kg in ddY-mice. I are useful for the prophylaxis and treatment of diseases or conditions resulting from elevated circulating levels of Apo B, such as hyperlipemia, hyperlipidemia, hyperlipoproteinemia, hypoalphalipoproteinemia, hypercholesterolemia, hypertriglyceridemia, atherosclerosis, pancreatitis, non-insulin dependent diabetes mellitus, obesity, coronary heart diseases, myocardial infarction, stroke, restenosis, and Syndrome X.

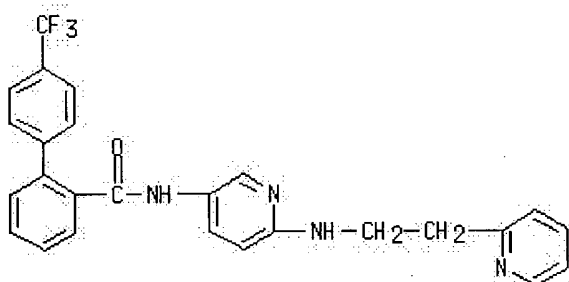
IT **366488-08-6P**, N-[6-[[2-(2-Pyridinyl)ethyl]amino]-3-pyridinyl]-4'-(trifluoromethyl)-1,1'-biphenyl-2-carboxamide

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(Apo B inhibitor; prepn. of pyridinyl-substituted benzamides as Apo B secretion inhibitors for treatment of obesity, NIDDM, and related conditions)

RN **366488-08-6** HCAPLUS

CN [1,1'-Biphenyl]-2-carboxamide, N-[6-[[2-(2-pyridinyl)ethyl]amino]-3-pyridinyl]-4'-(trifluoromethyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 37 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text References

ACCESSION NUMBER: 2002:237687 HCAPLUS  
DOCUMENT NUMBER: 137:11116  
TITLE: Steady-State Concentration Distribution of Artificial Receptor and Target Analyte in Plasticized PVC Membrane between Solutions Differing in Target Analyte Concentration  
AUTHOR(S): Zhang, Xu; Zhao, Hong; Weber, Stephen G.  
CORPORATE SOURCE: Department of Chemistry, University of Pittsburgh, Pittsburgh, PA, 15260, USA  
SOURCE: Analytical Chemistry (2002), 74(9), 2184-2189  
CODEN: ANCHAM; ISSN: 0003-2700  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB A barbiturate receptor was proven effective in improving selectivity in solid-phase microextn. of barbiturates when doped into plasticized poly(vinyl chloride) (PVC). It would be beneficial to have selective extns. for any given org. species; however, the receptors do not exist.

They will be found by screening of libraries of potential receptors; thus, a screening method was needed. It is important to screen the receptors in the medium in which they will work: plasticized PVC. We hypothesize that we can make receptors move in soln. in response to the presence of a solute to which they bind. This work examines whether we can establish a sufficient free energy gradient for a good receptor to move to a predetd. place in space. A difference in the barbiturate solute (substrate or guest) concn. in solns. bathing the two sides of a plasticized PVC membrane contg. the barbiturate receptor (or host) creates a spatial concn. gradient of the substrate in the membrane. This causes the receptor's chem. potential to vary across the membrane. Upon binding to the analyte, the receptor undergoes a local activity drop, which decreases its free energy. This process produces a flux of receptor to accumulate at place where there was a high substrate concn. A concn. gradient of substrate can be maintained across the membrane at steady state. In membranes for which the formation of the complex was favored, the receptor responds to the gradient of substrate. In membranes for which binding is not favored, a gradient of substrate was completely ignored by the receptor. Thus, the receptor does respond to the gradient but only if the concn. gradient of guest corresponds to a chem. potential gradient.

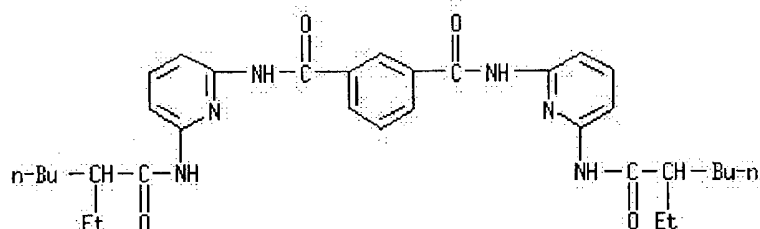
IT 228271-35-0

RL: ANT (Analyte); ANST (Analytical study)

(phenobarbital receptor; steady-state concn. distribution of artificial receptor and target analyte in plasticized PVC membrane between solns. differing in target analyte concn.)

RN 228271-35-0 HCAPLUS

CN 1,3-Benzenedicarboxamide, N,N'-bis[6-[(2-ethyl-1-oxohexyl)amino]-2-pyridinyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

24

THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 38 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text	Citing References
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ACCESSION NUMBER: 2002:225542 HCAPLUS

DOCUMENT NUMBER: 137:6501

TITLE: Supramolecular polymers generated from heterocomplementary monomers linked through multiple hydrogen-bonding arrays-formation, characterization, and properties

AUTHOR(S): Berl, Volker; Schmutz, Marc; Krische, Michael J.; Khoury, Richard G.; Lehn, Jean-Marie

CORPORATE SOURCE: Laboratoire de Chimie Supramoléculaire, ESA 7006 of the CNRS, ISIS, Université Louis Pasteur, Strasbourg, 67000, Fr.

SOURCE: Chemistry--A European Journal (2002), 8(5), 1227-1244. CODEN: CEUJED; ISSN: 0947-6539

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Supramol. polymers are described that are derived from the assocn. of two homoditopic heterocomplementary monomers through sextuple hydrogen-bonding arrays. They form fibers and a variety of different materials depending on the conditions. The strong affinity of the DAD - DAD (D=donor, A=acceptor) hydrogen-bonding sites for double-faced cyanuric acid type wedges drives the supramol. polymeric assembly in apolar and chlorinated org. solvents. The marked influence of stoichiometry, as well as end-capping and crosslinking agents upon fiber formation is revealed in soln. and by electron microscopy (EM). The results further contribute to the development of a supramol. polymer chem. that comprizes reversible polymers formed through recognition-controlled noncovalent connections between the mol. components. Such materials are, by nature, dynamic and present adaptive character in view of their ability to respond to external stimuli.

IT 433216-82-1P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(polymers from heterocomplementary monomers linked through multiple hydrogen-bonding arrays)

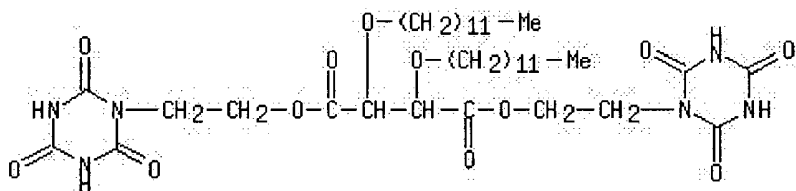
RN 433216-82-1 HCAPLUS

CN Butanedioic acid, 2,3-bis(dodecyloxy)-, bis[2-(tetrahydro-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl)ethyl] ester, polymer with 5,5'-[1,3-propanediylbis(oxy)]bis[N,N'-bis[6-[(1-oxobutyl)amino]-2-pyridinyl]-1,3-benzenedicarboxamide] (9CI) (CA INDEX NAME)

CM 1

CRN 433216-81-0

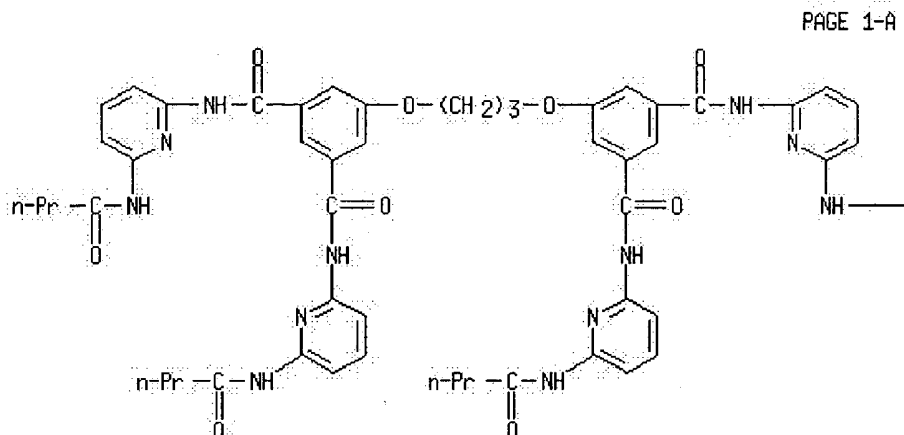
CMF C38 H64 N6 O12



CM 2

CRN 433216-79-6

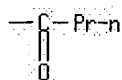
CMF C55 H60 N12 O10



PAGE 1-A



PAGE 1-B



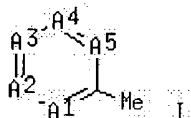
REFERENCE COUNT: 83 THERE ARE 83 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 39 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text Citations

ACCESSION NUMBER: 2002:169229 HCAPLUS  
 DOCUMENT NUMBER: 136:224165  
 TITLE: Silver halide color photographic light-sensitive film exhibiting low fogging  
 INVENTOR(S): Kataoka, Emiko; Kagawa, Nobuaki; Tanaka, Tatsuo  
 PATENT ASSIGNEE(S): Konica Corporation, Japan  
 SOURCE: Eur. Pat. Appl., 71 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1184717	A2	20020306	EP 2001-121093	20010903
EP 1184717	A3	20020807		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002148750	A2	20020522	JP 2000-349538	20001116
US 2002081543	A1	20020627	US 2001-942402	20010830
US 6566043	B2	20030520		
PRIORITY APPLN. INFO.:			JP 2000-266877	A 20000904
			JP 2000-349538	A 20001116
OTHER SOURCE(S):		MARPAT 136:224165		
GI				



AB The present invention provides a silver halide photog. light-sensitive film comprising a support having thereon a light-sensitive silver halide emulsion layer comprising a compd. represented by the formula Z-S-X ; wherein Z = group represented by the Formula I (A1, A2, A3, A4, A5 each represent =N-, =N(→O)-, and substituents further defined in the claims), X = H, or Z-S-. The object of the present invention is to provide a silver halide photog. light-sensitive film, comprising mercapto compds. and disulfide compds., which exhibits low fogging, excellent pressure resistance, and excellent sensitivity.

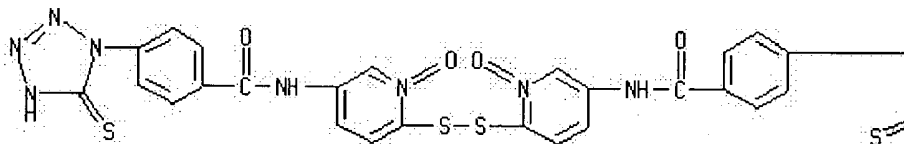
IT 402726-48-1

RL: TEM (Technical or engineered material use); USES (Uses)  
 (fog inhibitor; silver halide color photog. light-sensitive film  
 exhibiting low fogging)

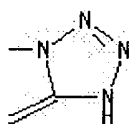
RN 402726-48-1 HCAPLUS

CN Benzamide, N,N'-[dithiobis(1-oxido-2,5-pyridinediyl)]bis[4-(2,5-dihydro-5-thioxo-1H-tetrazol-1-yl)- (9CI) (CA INDEX NAME)

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L12 ANSWER 40 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
 Citations  
 References

ACCESSION NUMBER: 2002:107335 HCAPLUS  
 DOCUMENT NUMBER: 136:151189  
 TITLE: Preparation of pyrazinyl-, pyridazinyl-, pyrimidinyl-, and pyridinyl-hexahydrodiazepines and their use as factor Xa inhibitors  
 INVENTOR(S): Herron, David Kent; Joseph, Sajan; Marquart, Angela Lynn; Masters, John Joseph; Mendel, David; Smith, Gerald Floyd; Waid, Philip Parker; Wiley, Michael Robert; Yee, Ying Kwong  
 PATENT ASSIGNEE(S): Eli Lilly and Company, USA  
 SOURCE: PCT Int. Appl., 159 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002010154	A2	20020207	WO 2001-US16528	20010718
WO 2002010154	A3	20020627		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1307444	A2	20030507	EP 2001-958825	20010718
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2004097491	A1	20040520	US 2003-332120	20030102

PRIORITY APPLN. INFO.:

US 2000-221092P

P 20000727

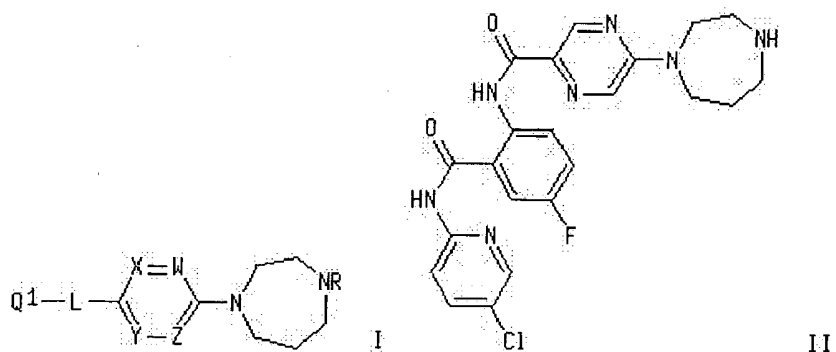
OTHER SOURCE(S):

MARPAT 136:151189

WO 2001-US16528

W 20010718

GI



AB Substituted hexahydrodiazepines I [R = H, alkyl, acyl, acetyloxy, acetyl, aminoacetyl, alkylamido, etc.; one or two of X, W, Y, and Z equals N and each of the others of X, W, Y and Z is CH; when L = CO or CH<sub>2</sub>, Q<sub>1</sub> = (un)substituted pyridinyl- or phenyl-amidophenylamine, in addn. when L = CO, Q<sub>1</sub> may equal Q<sub>2</sub>X<sub>2</sub>SO<sub>2</sub>N(CH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>N- wherein Q<sub>2</sub> = (un)substituted Ph, benzo[b]thiophen-2-yl or naphthalen-2-yl (X<sub>2</sub> = direct bond, CH<sub>2</sub>, ethylene, or ethen-1,2-diyl)], and their pharmaceutically acceptable salts are prepd. and disclosed as factor Xa inhibitors. Thus, II was prepd. by amidation of 2-amino-5-fluoro-N-(5-chloropyridin-2-yl)benzamide with 5-hydroxy-pyrazine-2-carboxylic acid (via its acid chloride) followed by substitution with 1-BOC-hexahydro-1,4-diazepine and subsequent deprotection of the diazepinyl nitrogen. As factor Xa inhibitors, the compds. of the invention are claimed to be useful in the treatment of thromboembolic disorders (no data).

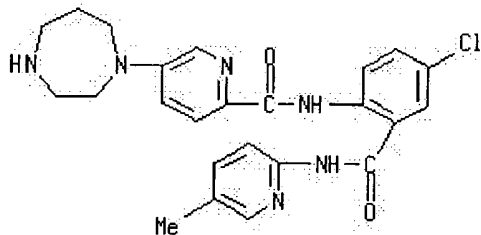
IT 395683-78-0P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(prepn. of pyrazinyl-, pyridazinyl-, pyrimidinyl-, and pyridinyl-hexahydrodiazepines as factor Xa inhibitors)

RN 395683-78-0 HCAPLUS

CN 2-Pyridinecarboxamide, N-[4-chloro-2-[(5-methyl-2-pyridinyl)amino]carbonyl]phenyl]-5-(hexahydro-1H-1,4-diazepin-1-yl)- (9CI)  
(CA INDEX NAME)



L12 ANSWER 41 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full	Chem
Text	References

h eb c g cg b cg

eb

ACCESSION NUMBER: 2002:14174 HCAPLUS  
 DOCUMENT NUMBER: 136:216362  
 TITLE: A Generic Recognition-Based Approach to the Acceleration of Cycloaddition Reactions  
 AUTHOR(S): Howell, Sarah J.; Spencer, Neil; Philp, Douglas  
 CORPORATE SOURCE: Centre for Biomolecular Sciences School of Chemistry, University of St. Andrews, St Andrews, KY16 9ST, UK  
 SOURCE: Organic Letters (2002), 4(2), 273-276  
 CODEN: ORLEF7; ISSN: 1523-7060  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Dicarboxylic acids accelerate the rate of cycloaddn. reactions between either an azide or a furan and a maleimide through the formation of a reactive 1:1:1 complex stabilized by four hydrogen bonds.

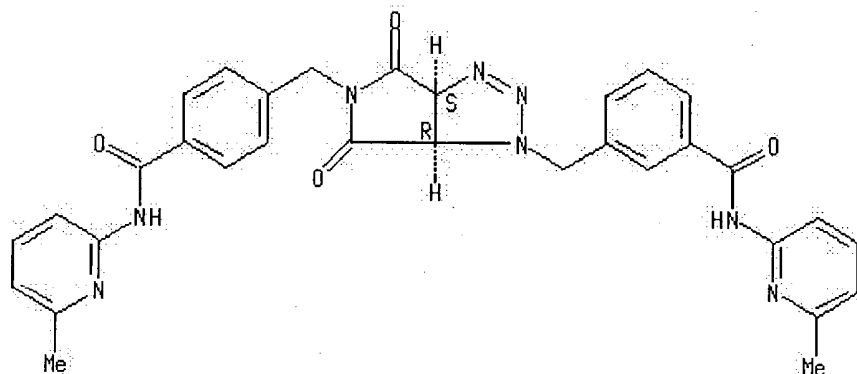
IT 402750-23-6

RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)  
 (recognition-based approach to acceleration of cycloaddn. reactions)

RN 402750-23-6 HCAPLUS

CN Benzamide, N-(6-methyl-2-pyridinyl)-3-[[ (3aR, 6aS)-4,5,6,6a-tetrahydro-5-[[4-[[ (6-methyl-2-pyridinyl)amino]carbonyl]phenyl]methyl]-4,6-dioxopyrrolo[3,4-d]-1,2,3-triazol-1(3aH)-yl]methyl]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 42 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text References

ACCESSION NUMBER: 2002:11104 HCAPLUS  
 DOCUMENT NUMBER: 136:69743  
 TITLE: Preparation of pyridyl benzamides and related compounds as Factor Xa inhibitors.  
 INVENTOR(S): Zhu, Bing-Yan; Zhang, Penglie; Wang, Lingyan; Huang, Wenrong; Goldman, Erick A.; Li, Wenhao; Zuckett, Jingmei; Song, Yonghong; Scarborough, Robert  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 259 pp., Cont.-in-part of U.S. Ser. No. 663,420.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 6

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002002183	A1	20020103	US 2001-794225	20010228
US 6376515	B2	20020423		
US 2003162690	A1	20030828	US 2002-126976	20020422
US 2004097561	A1	20040520	US 2003-687334	20031015
PRIORITY APPLN. INFO.:			US 2000-185746P	P 20000229
			US 2000-663420	A2 20000915
			US 2001-794225	A1 20010228
			US 2002-126976	A1 20020422

OTHER SOURCE(S): MARPAT 136:69743

AB AQDEGJX [A = alkyl, cycloalkyl, NR1R2, NR1R2C(:NR3), (substituted) Ph, naphthyl, heterocyclyl, etc.; R1-R3 = H, OR5, NR5R6, alkyl, alkenyl, etc.; R1R2 or R2R3 = atoms to form (substituted) cycloalkyl, heterocyclyl; R5, R6 = H, alkyl, alkenyl, alkynyl, cycloalkyl, (substituted) alkylphenyl, alkynaphthyl; R5R6 = atoms to form a 3-8 membered (substituted) ring; Q = bond, CH2, CO, O, S, SO, SO2, NR7, SO2NR7, etc.; R7 = H, alkyl, alkenyl, alkynyl, cycloalkyl, alkylcycloalkyl, (substituted) alkylphenyl, alkynaphthyl; D = bond, (substituted) Ph, naphthyl, mono- or bicyclic heterocyclyl; E = bond, alkyl, O, S, SO, SO2, alkylcarbonyl, etc.; G = (substituted) alkenyl, cycloalkenyl, phenylene, 3-8 membered (fused) (arom.) heterocyclyl; J = bond, NR9CO, O, S, SO, SO2, CH2, NR9SO2, etc.; X = (substituted) Ph, naphthyl, (fused) heteroaryl], were prepd. as antithrombotics (no data). Thus, N-(5-bromo-2-pyridinyl)-2-aminophenylcarboxamide (prepn. given), 4-cyanobenzoyl chloride, and pyridine were stirred overnight in CH2Cl2 to give 70% N-(5-bromo-2-pyridinyl)-[2-(4-cyanophenylcarbonyl)amino]phenylcarboxamide. The latter in MeOH at 0° was satd. with HCl and stirred overnight followed by solvent evapn. The residue was refluxed 2 h with NH4OAc in MeOH to give 70% N-(5-bromo-2-pyridinyl)-[2-(4-amidinophenylcarbonyl)amino]phenylcarboxamide.

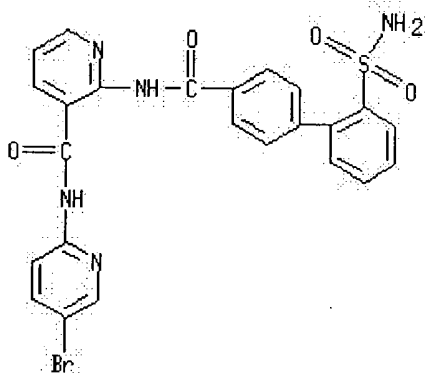
## IT 330939-74-7P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of pyridyl benzamides and related compds. as Factor Xa inhibitors)

RN 330939-74-7 HCAPLUS

CN 3-Pyridinecarboxamide, 2-[[[2'-(aminosulfonyl)[1,1'-biphenyl]-4-yl]carbonyl]amino]-N-(5-bromo-2-pyridinyl)- (9CI) (CA INDEX NAME)





ACCESSION NUMBER: 2001:896753 HCAPLUS  
 DOCUMENT NUMBER: 136:118326  
 TITLE: Molecular recognition of xanthine alkaloids: first synthetic receptors for theobromine and a series of new receptors for caffeine  
 AUTHOR(S): Goswami, Shyamaprosad; Mahapatra, Ajit Kumar; Mukherjee, Reshmi  
 CORPORATE SOURCE: Department of Chemistry, Bengal Engineering College (Deemed University), Howrah, 711103, India  
 SOURCE: Journal of the Chemical Society, Perkin Transactions 1 (2001), (20), 2717-2726  
 CODEN: JCSPCE; ISSN: 1472-7781  
 PUBLISHER: Royal Society of Chemistry  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 136:118326  
 GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Synthetic receptors [I, II (R = H, Ac) and III] are designed and synthesized for the first time for theobromine, a xanthine alkaloid used as a diuretic. The synthesis of the receptor III is achieved by Co(PPh<sub>3</sub>)<sub>3</sub>Cl-mediated homocoupling of 3-(ethoxycarbonyl)benzyl bromide under mild conditions. New caffeine receptors [IV and V (X = CH<sub>2</sub>, SO<sub>2</sub>)] are designed and synthesized. The binding results of theobromine and caffeine (both by NMR and UV studies) are reported.

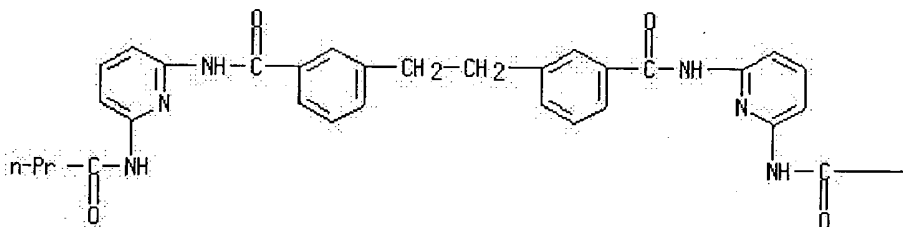
IT 390358-50-6P

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)  
 (mol. recognition of xanthine alkaloids by synthetic receptors specific for theobromine or caffeine)

RN 390358-50-6 HCAPLUS

CN Benzamide, 3,3'-(1,2-ethanediyl)bis[N-[6-[(1-oxobutyl)amino]-2-pyridinyl]-  
 (9CI) (CA INDEX NAME)

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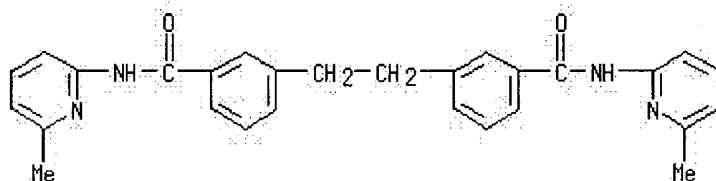
Pr-n

REFERENCE COUNT:

39

THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 73 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text References

ACCESSION NUMBER: 2000:144899 HCAPLUS  
 DOCUMENT NUMBER: 132:189658  
 TITLE: Amino acid derivative and peptide anti-cancer compounds and methods  
 INVENTOR(S): Stewart, John M.; Chan, Daniel C. F.; Gera, Lojos; York, Eunice; Bunn, Paul  
 PATENT ASSIGNEE(S): USA  
 SOURCE: PCT Int. Appl., 55 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000011022	A1	20000302	WO 1999-US19381	19990820
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6388054	B1	20020514	US 1999-378019	19990819
AU 2000015959	A1	20000314	AU 2000-15959	19990820
US 2002183252	A1	20021205	US 2001-35662	20011228
PRIORITY APPLN. INFO.:				
			US 1998-97210P	P 19980820
			US 1999-141169P	P 19990625
			US 1999-378019	A 19990819
			WO 1999-US19381	W 19990820

OTHER SOURCE(S): MARPAT 132:189658

AB The invention provides amino acid deriv. and peptidic compds. useful to inhibit tumor growth and to induce apoptosis. In general, the anti-cancer agents (ACA) are described by the formula [ACA]<sub>n</sub>-X [X = linker group with 2-5 functional groups or is absent; n = 1; ACA as described in the invention (Markush included)].

IT **259885-31-9P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

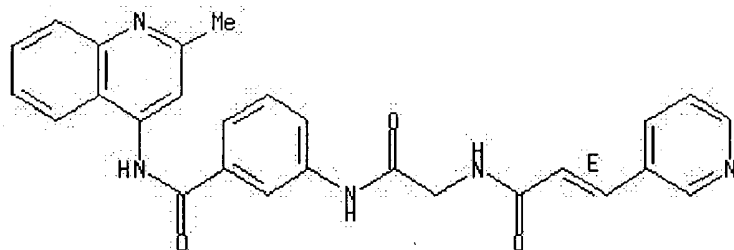
(peptide and non-peptide anti-cancer compds. and methods)

RN 259885-31-9 HCAPLUS

CN Benzamide, N-(2-methyl-4-quinolinyl)-3-[[[(2E)-1-oxo-3-(3-pyridinyl)-2-propenyl]amino]acetyl]amino]- (9CI) (CA INDEX NAME)



Double bond geometry as shown.

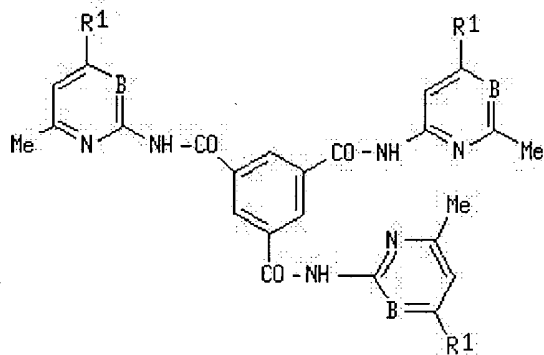


REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 74 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text Citing References

ACCESSION NUMBER: 2000:132410 HCAPLUS  
 DOCUMENT NUMBER: 132:293937  
 TITLE: Molecular recognition of carbohydrates by artificial polypyridine and polypyrimidine receptors  
 AUTHOR(S): Mazik, Monika; Bandmann, Heinz; Sicking, Willi  
 CORPORATE SOURCE: Institut für Organische Chemie der Universität Essen, Essen, 45117, Germany  
 SOURCE: Angewandte Chemie, International Edition (2000), 39(3), 551-554  
 CODEN: ACIEF5; ISSN: 1433-7851  
 PUBLISHER: Wiley-VCH Verlag GmbH  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



AB The recognition and binding of monosaccharides to simple, acyclic saccharide receptors, I (B = CH; R1 = H) and (B = N; R1 = Me), which incorporate three pyridine-amide or pyrimidine-amide moieties interconnected by a Ph spacer are discussed. Although these host mols. possess an acyclic structure, they are able to bind effectively to monosaccharides. These types of host mols. provide both hydrogen bonding sites and  $\pi$ -bonds for facilitating stacking interactions and thus participate in three-dimensional recognition of sugars.

IT 264626-71-3P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (mol. recognition of carbohydrates by artificial polypyridine and polypyrimidine receptors)

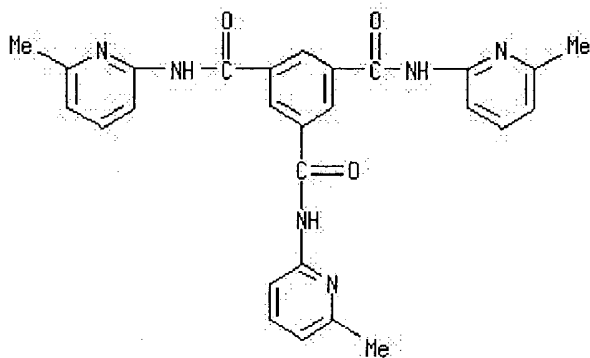
RN 264626-71-3 HCAPLUS

CN  $\beta$ -D-Glucopyranoside, octyl, compd. with N,N',N''-tris(6-methyl-2-pyridinyl)-1,3,5-benzenetricarboxamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 164174-81-6

CMF C27 H24 N6 O3

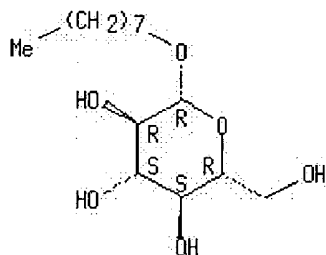


CM 2

CRN 29836-26-8

CMF C14 H28 O6

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 75 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

**Full Text** **Chemical References**

ACCESSION NUMBER: 2000:63275 HCAPLUS  
 DOCUMENT NUMBER: 134:125538  
 TITLE: Three-dimensional quantitative structure-activity relationship study on cyclic urea derivatives as HIV-1 protease inhibitors: application of comparative molecular field analysis. [Erratum to document cited in CA130:217600]  
 AUTHOR(S): Debnath, Asim Kumar  
 CORPORATE SOURCE: Biochemical Virology Laboratory, Lindsley F. Kimball Research, Institute of The New York Blood Center, New York, NY, 10021, USA  
 SOURCE: Journal of Medicinal Chemistry (2000), 43(4), 764  
 CODEN: JMCMAR; ISSN: 0022-2623  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The last two structures representing compds. 104-118 are incorrect; the correct structure is given.

IT **183854-97-9**

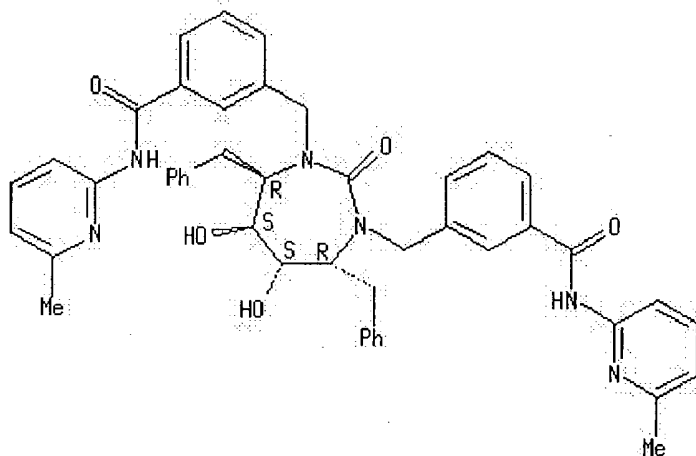
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(QSAR study on cyclic urea derivs. as HIV-1 protease inhibitors: application of comparative mol. field anal. (Erratum))

RN **183854-97-9** HCAPLUS

CN Benzamide, 3,3'-[[[(4R,5S,6S,7R)-tetrahydro-5,6-dihydroxy-2-oxo-4,7-bis(phenylmethyl)-1H-1,3-diazepine-1,3(2H)-diyl]bis(methylene)]bis[N-(6-methyl-2-pyridinyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



L12 ANSWER 76 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN



ACCESSION NUMBER:	2000:46405 HCAPLUS
DOCUMENT NUMBER:	132:194631
TITLE:	Three-point hydrogen bondings of carboxyl group in recognition of carboxylic acid and amino acid with designed synthetic receptors
AUTHOR(S):	Goswami, Shyamaprosad; Ghosh, Kumares; Mukherjee, Reshmi
CORPORATE SOURCE:	Department of Chemistry, Bengal Engineering College, Deemed University, Howrah, 711 103, India
SOURCE:	Journal of the Indian Chemical Society (1999), 76(11-12), 661-664 CODEN: JICSAH; ISSN: 0019-4522
PUBLISHER:	Indian Chemical Society
DOCUMENT TYPE:	Journal
LANGUAGE:	English
GI	

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The binding of carboxylic acids and amino acids were reported with designed synthetic receptors. The 3-point binding of carboxylic acids (with receptors I-III) was used to bind acetyl glycine with receptor 6.

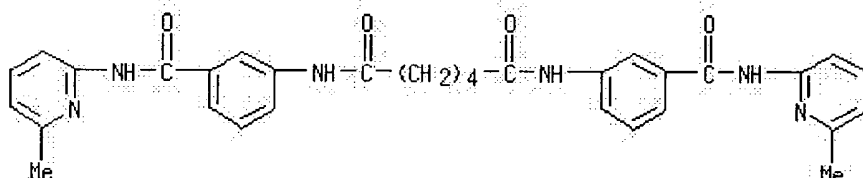
IT 259728-69-3P

RL: PEP (Physical, engineering or chemical process); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)

(three-point hydrogen bondings of carboxyl group in recognition of carboxylic acid and amino acid with designed synthetic receptors)

RN 259728-69-3 HCAPLUS

CN Hexanediamide, N,N'-bis[3-[[ (6-methyl-2-pyridinyl) amino] carbonyl] phenyl]-(9CI) (CA INDEX NAME)



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 77 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
Citing References

ACCESSION NUMBER: 1999:784096 HCAPLUS

DOCUMENT NUMBER: 132:12266

TITLE: Preparation of N-acylarylalanines as  $\alpha 4$  integrin antagonists

INVENTOR(S): Head, John Clifford; Warrelow, Graham John; Porter, John Robert; Archibald, Sarah Catherine

PATENT ASSIGNEE(S): Celltech Therapeutics Limited, UK

SOURCE: PCT Int. Appl., 47 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9962901 A1		19991209	WO 1999-GB1741	19990603
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG				

PRIORITY APPLN. INFO.: GB 1998-11969 19980603

OTHER SOURCE(S): MARPAT 132:12266

GI For diagram(s), see printed CA Issue.

AB R1Z1Z2Z3CRR4R5 [I; R = CO<sub>2</sub> or deriv. thereof (sic); R1 = H, (hetero)cycloaliph. group, (hetero)aryl; R4 = H or Me; R5 = NHCOR<sub>6</sub>, NHCSR<sub>6</sub>, etc.; R6 = (hetero)(cyclo)aliph. group, (hetero)aryl, etc.; Z = bond or linker atom or group (sic); Z1 = bond, divalent (hetero)aliph. group; Z2 = pyridinediyl, pyrimidinediyl, pyrazinediyl, etc.; Z3 = bond or alkylene] were prepd. Thus, Ph<sub>2</sub>CHNHCH<sub>2</sub>CO<sub>2</sub>Et was alkylated by 2-bromomethyl-5-phenylsulfonyloxypyridine and the N-protected product acylated by N-acetyl-D-thiopropine to give, after sapon., a diastereomeric mixt. of title compd. II. Data for biol. activity of I were given.

IT 251458-86-3P

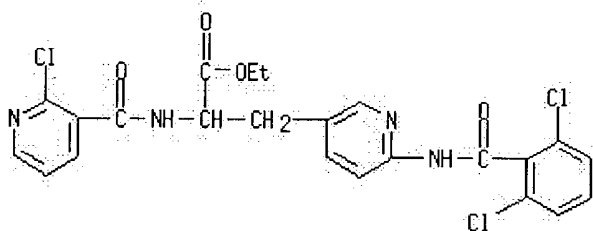
RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);  
BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of N-acylarylalanines as  $\alpha 4$  integrin antagonists)

RN 251458-86-3 HCAPLUS

CN 3-Pyridinepropanoic acid,  $\alpha$ -[[[(2-chloro-3-pyridinyl)carbonyl]amino]-  
6-[(2,6-dichlorobenzoyl)amino]-, ethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 78 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full  
Text

Citing  
References

ACCESSION NUMBER: 1999:779251 HCAPLUS  
DOCUMENT NUMBER: 132:20807  
TITLE: Self-assembling, chromogenic receptors for the  
recognition of medically important substrates and  
their method of use  
INVENTOR(S): Goodman, M. Scott; Hamilton, Andrew D.  
PATENT ASSIGNEE(S): University of Pittsburgh of the Commonwealth System of  
Higher Education, USA  
SOURCE: U.S., 21 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5998594	A	19991207	US 1994-368209	19941230
PRIORITY APPLN. INFO.:			US 1994-368209	19941230

AB A chromogenic receptor comprises a self-assembled chromogenic compd. having at least one intrinsic binding site. The chromogenic compd. is characterized by the property of producing a reversible color change responsive to binding a target substrate to the receptor. The chromogenic compd. has a transition metal ion and at least one ligand bound to the transition metal ion. The ligand is selected from the group consisting of substituted phenanthroline, substituted 2,2'-bipyridine and substituted 2,2':6',2"-terpyridine. The transition metal is selected from the group consisting of Cu(I), Cu(II), Ag(I), Ni(II), Fe(II), Fe(III), Ru(II), Co(III), and Os(II). Self-assembly can be effected in the presence of Cu(I) to form receptors for dicarboxylic acids, carbohydrate, amino acids, steroids and pyrophosphates. The receptors are characterized by the formation of a 2:1 complex of the target substrate with the receptor producing a visible color change from orange to red and a measurable change in its luminescence. Methods of using these receptors are also disclosed.

IT 167496-61-9

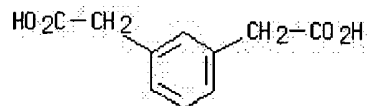
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)  
(self-assembling, chromogenic receptors for recognition of medically

important substrates and method of use)

RN 167496-61-9 HCAPLUS  
 CN Copper(1+), bis[4,4'-(1,10-phenanthroline-2,9-diyl-  
 $\kappa$ N1, $\kappa$ N10)bis[N-(6-methyl-2-pyridinyl)benzamide]]-, (T-4)-,  
 tetrafluoroborate(1-), 1,3-benzenediacetate (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 19806-17-8  
 CMF C10 H10 O4



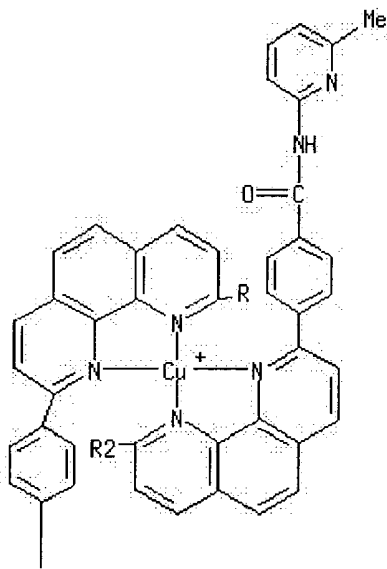
CM 2

CRN 167496-54-0  
 CMF C76 H56 Cu N12 O4 . B F4

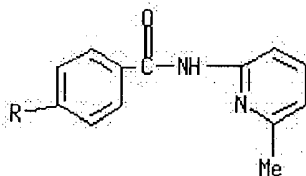
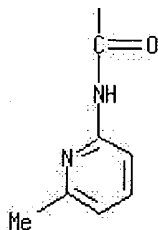
CM 3

CRN 167496-53-9  
 CMF C76 H56 Cu N12 O4  
 CCI CCS

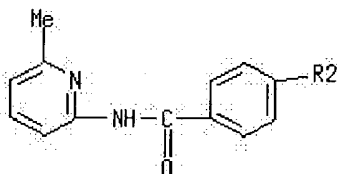
PAGE 1-A



PAGE 2-A



PAGE 3-A

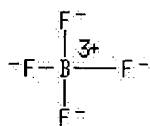


CM 4

CRN 14874-70-5

CMF B F4

CCI CCS



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 79 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text	References

ACCESSION NUMBER: 1999:733987 HCAPLUS  
 DOCUMENT NUMBER: 132:44883  
 TITLE: Induced fit selection of a barbiturate receptor from a dynamic structural and conformational/configurational library  
 AUTHOR(S): Berl, Volker; Huc, Ivan; Lehn, Jean-Marie; DeCian, Andre; Fischer, Jean  
 CORPORATE SOURCE: Laboratoire Chimie Supramoléculaire, Univ. Louis Pasteur, Strasbourg, F-67000, Fr.  
 SOURCE: European Journal of Organic Chemistry (1999), (11), 3089-3094  
 CODEN: EJOCFK; ISSN: 1434-193X  
 PUBLISHER: Wiley-VCH Verlag GmbH  
 DOCUMENT TYPE: Journal

LANGUAGE: English

AB The selection of the receptor presenting the strongest affinity for a barbiturate substrate from a dynamic combinatorial library of constituents differing in structure and conformation/configuration is described. The gradual addn. of the barbiturate to an equilibrating mixt. of hydrazone isomers leads to the quant. shift towards a single species, 5,5-dibutylbarbiturate, which presents highest complementarity to the substrate and yields a supramol. entity with the bis(2-pyridinylhydrazone) of 5,5-dimethyl-1,3-cyclohexanedione.

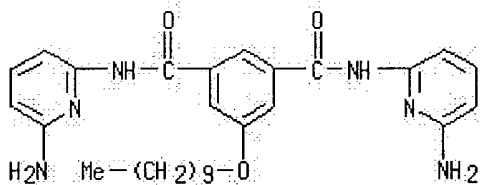
IT 252903-90-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(induced-fit selection of barbiturate receptor from dynamic structural and conformational/configurational library)

RN 252903-90-5 HCAPLUS

CN 1,3-Benzenedicarboxamide, N,N'-bis(6-amino-2-pyridinyl)-5-(decyloxy)-(9CI) (CA INDEX NAME)



REFERENCE COUNT:

26

THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 80 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text References

ACCESSION NUMBER: 1999:684896 HCAPLUS

DOCUMENT NUMBER: 132:12145

TITLE: Hydrogen-bonding motifs in the crystals of secondary diamides with 2-amino-6-methyl- and 2,6-diaminopyridine subunits

AUTHOR(S): Mazik, Monika; Blaser, Dieter; Boese, Roland

CORPORATE SOURCE: Institut für Organische Chemie der Universität Essen, Essen, D-45117, Germany

SOURCE: Tetrahedron (1999), 55(44), 12771-12782

CODEN: TETRAB; ISSN: 0040-4020

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Hydrogen-bonding motifs in the crystal structures of N,N'-bis(6-methyl-pyridin-2-yl)isophthalamide, 1,3-bis[[(6-methyl-pyridin-2-yl)amino]carbonylmethyloxy]benzene, N,N'-bis(6-amino-pyridin-2-yl)isophthalamide and 1,3-bis[[(6-amino-pyridin-2-yl)amino]carbonylmethyloxy]benzene are reported. The hydrogen bond preferences were analyzed.

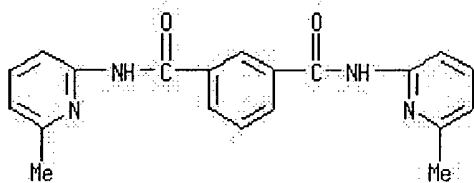
IT 251655-31-9P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (crystallog.; hydrogen-bonding motifs in the crystals of secondary diamides with 2-amino-6-methyl- and 2,6-diaminopyridine subunits)

RN 251655-31-9 HCAPLUS

CN 1,3-Benzenedicarboxamide, N,N'-bis(6-methyl-2-pyridinyl)-, hydrate (2:1) (9CI) (CA INDEX NAME)



# 1/2 H<sub>2</sub>O

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 81 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full  
Text

References

ACCESSION NUMBER: 1999:643409 HCAPLUS  
DOCUMENT NUMBER: 132:12561  
TITLE: Glucopyranoside Recognition by Polypyridine-Macrocyclic Receptors Possessing a Wide Cavity with a Flexible Linkage  
AUTHOR(S): Inouye, Masahiko; Chiba, Junya; Nakazumi, Hiroyuki  
CORPORATE SOURCE: PRESTO Japan Science and Technology Corporation (JST) Department of Applied Materials Science, Osaka Prefecture University, Sakai Osaka, 599-8531, Japan  
SOURCE: Journal of Organic Chemistry (1999), 64(22), 8170-8176 CODEN: JOCEAH; ISSN: 0022-3263  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB New polypyridine-macrocyclic receptors for glucopyranosides were designed and synthesized. The artificial receptors possess a terpyridine skeleton as a hydrogen-bonding site and a flexible polyoxyethylene chain as a bridge for the macrocyclic structure, in which the cavity of the receptors is large enough to incorporate pyranosides. The receptors showed high affinities for n-octyl  $\beta$ -(D)-glucopyranoside, and selective binding of the receptors was obsd. between epimeric pyranosides. The results obtained in this paper demonstrated versatility of the terpyridine skeleton as a hydrogen-bonding site for saccharides.

IT **251640-44-5P**

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (prepn. and mol. structure of polypyridine-macrocyclic receptors contg. terpyridine skeleton as a hydrogen-bonding site for glucopyranosides)

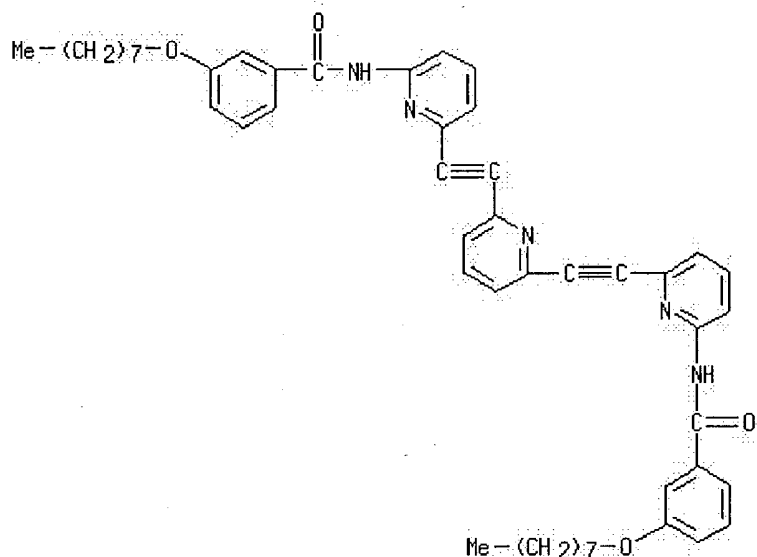
RN 251640-44-5 HCAPLUS

CN  $\beta$ -D-Ribofuranoside, methyl, compd. with N,N'-[2,6-pyridinediylbis(2,1-ethynediyl-6,2-pyridinediyl)]bis[3-(octyloxy)benzamide] (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 251640-40-1

CMF C49 H53 N5 O4

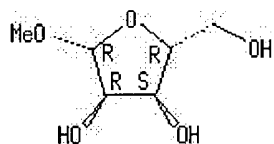


CM 2

CRN 7473-45-2

CMF C6 H12 O5

Absolute stereochemistry.



REFERENCE COUNT:

27

THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 82 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full  
TextCiting  
References

ACCESSION NUMBER:

1999:571294 HCAPLUS

DOCUMENT NUMBER:

131:295122

TITLE:

NMR-based discovery of phosphotyrosine mimetics that bind to the Lck SH2 domain

AUTHOR(S):

Hajduk, Philip J.; Zhou, Ming-Ming; Fesik, Stephen W.

CORPORATE SOURCE:

Abbott Laboratories, Abbott Park, IL, 60064, USA

SOURCE:

Bioorganic &amp; Medicinal Chemistry Letters (1999), 9(16), 2403-2406

CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER:

Elsevier Science Ltd.

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AB Using an NMR-based screen, a series of novel phosphotyrosine mimetics were discovered that bind to the SH2 domain of Lck. These compds. may serve as useful leads for the design of nonpeptide inhibitors of SH2 domains with improved bioavailability and metabolic stability compared to the natural ligands that contain phosphotyrosine.

IT 247089-00-5

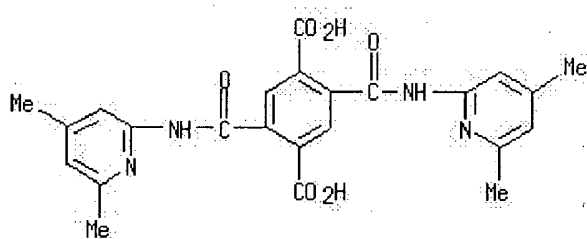
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(NMR-based discovery of phosphotyrosine mimetics that bind to Lck SH2

domain)

RN 247089-00-5 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, 2,5-bis[[4,6-dimethyl-2-pyridinyl]amino]carbonyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 83 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN



ACCESSION NUMBER: 1999:429264 HCAPLUS

DOCUMENT NUMBER: 131:184927

TITLE: 5-Fluoro-2-methyl-N-[5-(5H-pyrrolo[2,1-c][1,4]benzodiazepin-10(11H)-ylcarbonyl)-2-pyridinyl]benzamide (CL-385004) and analogs as orally active arginine vasopressin receptor antagonists  
 AUTHOR(S): Aranapakam, Venkatesan; Albright, J. Donald; Grosu, George T.; Delos Santos, Efren G.; Chan, Peter S.; Coupet, Joseph; Ru, Xun; Saunders, Trina; Mazandarani, H.

CORPORATE SOURCE: Wyeth-Ayerst Research, Pearl River, NY, 10965, USA

SOURCE: Bioorganic &amp; Medicinal Chemistry Letters (1999), 9(13), 1737-1740

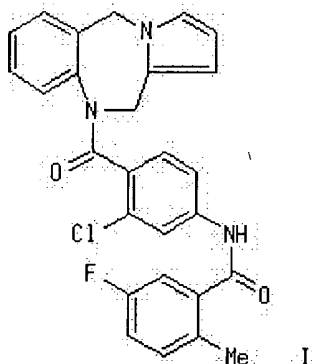
CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



AB Synthesis and structure-activity relationships of orally active arginine vasopressin (AVP) receptor antagonists are discussed. Potent and orally active AVP receptor antagonists are produced when the central benzene ring of VPA-985 (I) is replaced with a 3-pyridinyl unit.

IT 239450-11-4P

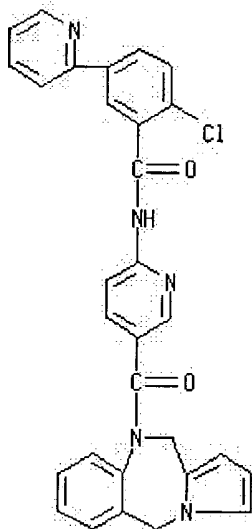
RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(prepn. as orally active arginine vasopressin receptor antagonist)

RN 239450-11-4 HCAPLUS

CN Benzamide, 2-chloro-5-(2-pyridinyl)-N-[5-(5H-pyrrolo[2,1-c][1,4]benzodiazepin-10(11H)-ylcarbonyl)-2-pyridinyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 84 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text Citing References

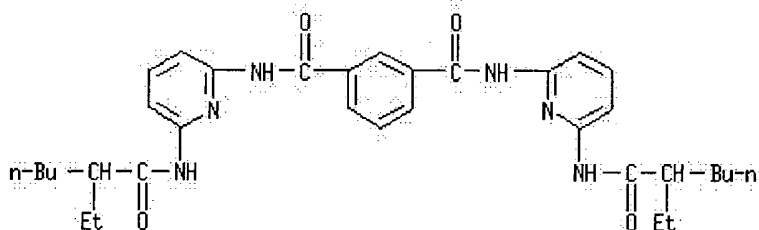
ACCESSION NUMBER: 1999:245257 HCAPLUS  
 DOCUMENT NUMBER: 131:53493  
 TITLE: Artificial Receptor-Facilitated Solid-Phase Microextraction of Barbiturates  
 AUTHOR(S): Li, Shu; Sun, Lifang; Chung, Yongsoon; Weber, Stephen G.  
 CORPORATE SOURCE: Department of Chemistry, University of Pittsburgh, Pittsburgh, PA, 15260, USA  
 SOURCE: Analytical Chemistry (1999), 71(11), 2146-2151  
 CODEN: ANCHAM; ISSN: 0003-2700  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB A receptor for barbiturates, N,N'-Bis-[6-(2-ethylhexanoylamino)-pyridin-2-yl]-isophthalamide, was designed to dissolve in plasticizers of poly(vinyl chloride) (PVC). Microextns. using receptor-doped films of PVC were carried out as a function of receptor concn. The effect of the concn. of the receptor on extn. yield is considerable for barbiturates that have significant binding to the receptor but negligible for very similar mols. that do not bind to the receptor strongly. Thus, it is the receptor's ability in mol. recognition, not its generic ability as an H-bonding cosolvent, that is important. On the other hand, NMR data show that the receptor self-assocs. A simple, approx. anal. is given to ext. the amt. of active receptor from the data. Receptor-enhanced extns. of barbiturates from urine are compared to extns. using a phosphate ester as solvent.

IT 228271-35-0P

RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(artificial receptor-facilitated solid-phase microextn. of barbiturates)

RN 228271-35-0 HCAPLUS

CN 1,3-Benzenedicarboxamide, N,N'-bis[6-[(2-ethyl-1-oxohexyl)amino]-2-pyridinyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 85 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
References

ACCESSION NUMBER: 1999:241334 HCAPLUS

DOCUMENT NUMBER: 130:329555

TITLE: Hydrogen bonding association of a ruthenium(II) bipyridine barbituric acid guest to complementary 2,6-diamino-pyridine amide hosts: guidelines for designing high binding hydrogen bonding cavities in both high-and low-polarity solvents  
AUTHOR(S): Salameh, A. S.; Ghaddar, T.; Isied, Stephan S.  
CORPORATE SOURCE: American University of Beirut, Beirut, Lebanon  
SOURCE: Journal of Physical Organic Chemistry (1999), 12(3), 247-254

CODEN: JPOCEE; ISSN: 0894-3230

PUBLISHER: John Wiley &amp; Sons Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The binding between a Ru polypyridine guest RuG2, (Ru = 4,4'-di-tert-butyl-bpy)2Ru (bpy = 2,2'-bipyridine) and G2 = 5-[4-(4'-methyl)-2,2'-bipyridyl]methyl-2,4,6-(1H,3H,5H)-pyrimidinetrione, and host acyl derivs. of 3,5-bis[(6-aminopyrid-2-yl)amino]carbonylpyridine (R/H = Pr/H, phenyl/H, CF3/H, t-Bu/H, -(CH2)3-CO2-H) and 3,5-bis[(6-amino-4-isopropoxy-pyrid-2-yl)amino]carbonylpyridine diacetyl deriv. (R/X = CH3/i-OPr) were studied by fluorescence and NMR titrns. The RuG2 (which exists in the enolate form in the presence of the hosts) forms a no. of H-bonds involving the amide groups of the hosts and the carbonyl groups of the G2 for all the hosts studied. Specific 1:1 assocn. between RuG2 and all the complementary hosts was obsd. with binding constns., Ka (1 mol-1), for R/H in CH2Cl2 of 3 105 l (t-Bu/H), 5 106 l (Ph/H), 3 107 l (Pr/H), 9 107 l (CF3/H) and >108 l [-(CH2)3CO2H] and for R/X of 4 108 l (Me/i-OPr). Similar, but weaker, binding was also obsd. in solvents of higher donor no. such as d6-acetone, d3-MeCN and d6-DMSO with R/X = Me/i-OPr host showing the highest binding const. in CH2Cl2, d6-acetone and d6-DMSO. Differences in the binding constns. of the Ru guest RuG2 to these hosts are analyzed in terms of the steric, electronic and solvation changes in the structure of the host amide substituents and

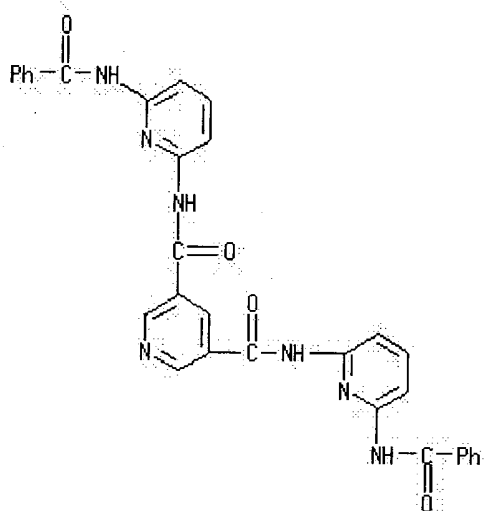
the polarity of the solvents used.

IT **223708-96-1P**

RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)  
(prepn. and assocn. consts. and hydrogen bonding with ruthenium bipyridylmethylpyrimidinetrione complex)

RN 223708-96-1 HCAPLUS

CN 3,5-Pyridinedicarboxamide, N,N'-bis[6-(benzoylamino)-2-pyridinyl]- (9CI)  
(CA INDEX NAME)



REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 86 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text	Citing References
ACCESSION NUMBER:	1999:186121 HCAPLUS
DOCUMENT NUMBER:	130:329456
TITLE:	Design of New Organic Gelators Stabilized by a Host-Guest Interaction
AUTHOR(S):	Inoue, Kazuhiko; Ono, Yoshiyuki; Kanekiyo, Yasumasa; Ishi-i, Tsutomu; Yoshihara, Kanami; Shinkai, Seiji
CORPORATE SOURCE:	Chemotransfiguration Project, Japan Science and Technology Corporation (JST), Kurume Fukuoka, 839-0861, Japan
SOURCE:	Journal of Organic Chemistry (1999), 64(8), 2933-2937 CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER:	American Chemical Society
DOCUMENT TYPE:	Journal
LANGUAGE:	English

ACCESSION NUMBER: 1999:186121 HCAPLUS  
DOCUMENT NUMBER: 130:329456  
TITLE: Design of New Organic Gelators Stabilized by a Host-Guest Interaction  
AUTHOR(S): Inoue, Kazuhiko; Ono, Yoshiyuki; Kanekiyo, Yasumasa; Ishi-i, Tsutomu; Yoshihara, Kanami; Shinkai, Seiji  
CORPORATE SOURCE: Chemotransfiguration Project, Japan Science and Technology Corporation (JST), Kurume Fukuoka, 839-0861, Japan  
SOURCE: Journal of Organic Chemistry (1999), 64(8), 2933-2937  
CODEN: JOCEAH; ISSN: 0022-3263  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The present paper demonstrated that new org. gelators can be designed by an appropriate combination of H-bonding hosts and guests. The authors synthesized 2 host compds. which possess a 2,6-(dimethylamino)pyridine moiety; 1,3-Bis[[(6-cholesteryloxyformamido-2-pyridyl)amino]carbonyl]propane (HostI) and 1,3-Bis[[(6-cholesteryloxyformamido-2-pyridyl)amino]carbonyl]benzene (HostII). Two different gelation mechanisms are identified: (i) the HostI/guest system increases the free NH group and forms the gel by the intermol. H-bonding interaction (ii) the HostII/guest system decreases the free NH group and forms the complementary host-guest complex useful for the intermol. stacking.

IT **223749-92-6P**

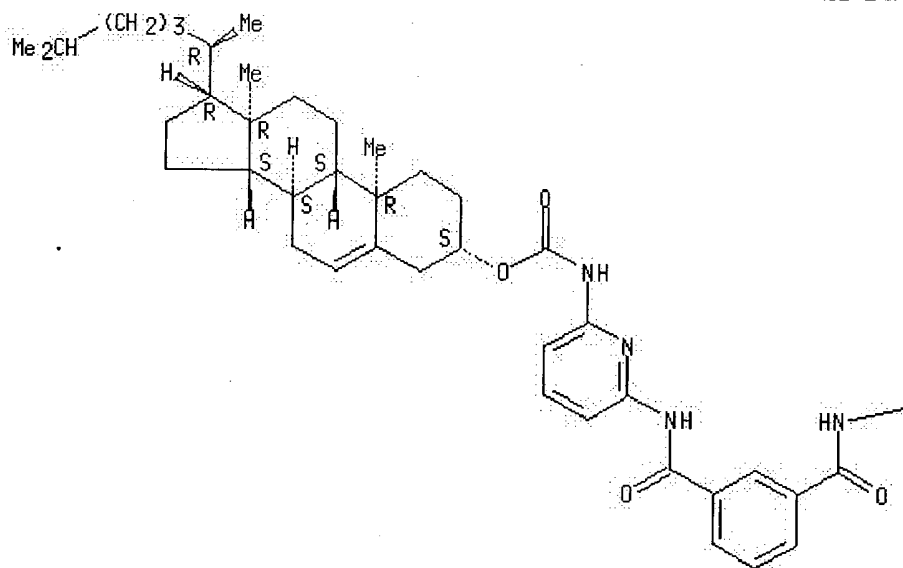
RL: PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)  
 (synthesis of host compd. contg. (dimethylamino)pyridine moiety to prep. new org. gelators stabilized by host-guest interaction)

RN 223749-92-6 HCAPLUS

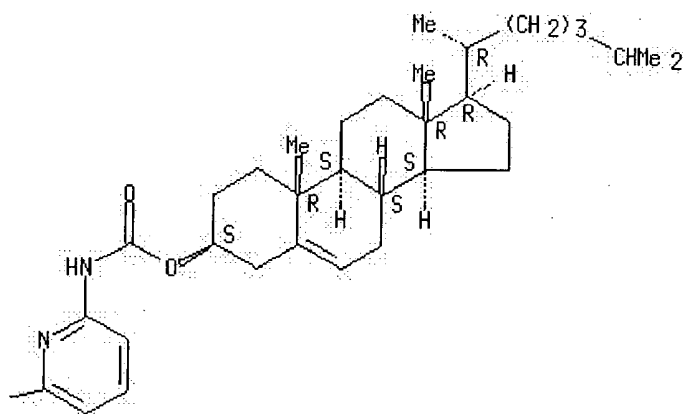
CN Cholest-5-en-3-ol (3 $\beta$ )-, [1,3-phenylenebis(carbonylimino-6,2-pyridinediyl)]bis[carbamate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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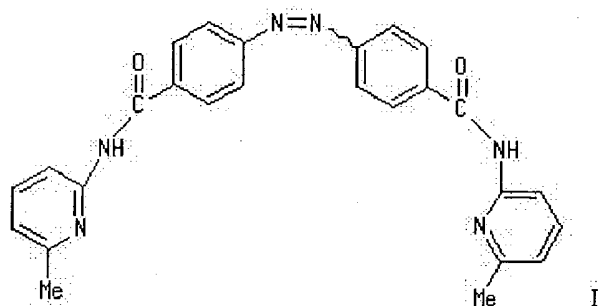
Full Text References

ACCESSION NUMBER: 1999:126086 HCAPLUS

DOCUMENT NUMBER: 130:281735

TITLE: Molecular recognition: hydrogen bonding induced configurational locking of a new photoresponsive receptor by dicarboxylic acids

AUTHOR(S): Goswami, Shyamaprosad; Ghosh, Kumaresh; Halder, Mintu  
 CORPORATE SOURCE: Department of Chemistry, Bengal Engineering College,  
 Deemed University, Howrah, 711 103, India  
 SOURCE: Tetrahedron Letters (1999), 40(9), 1735-1738  
 CODEN: TELEAY; ISSN: 0040-4039  
 PUBLISHER: Elsevier Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



AB A new photoresponsive system (I) has been synthesized and recognition by the cavity of the cis-isomer of I of dicarboxylic acids of various chain lengths has been studied on irradiation at 310 nm. The cavity of the cis form is found to be selective for adipic acid.

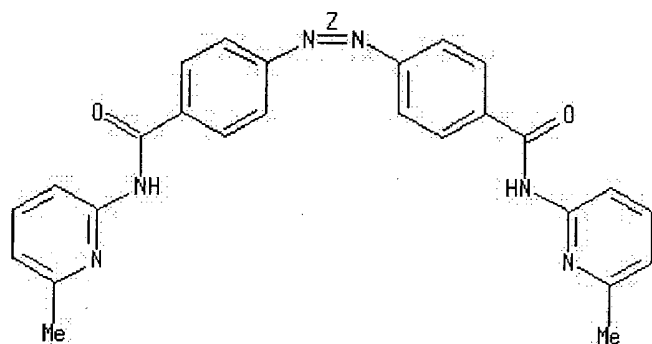
IT 222529-63-7P

RL: PEP (Physical, engineering or chemical process); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)  
 (prepn. of functionalized azo compd. as azo receptor for dicarboxylic acids)

RN 222529-63-7 HCAPLUS

CN Benzamide, 4,4'-(1Z)-azobis[N-(6-methyl-2-pyridinyl)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 88 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text References

ACCESSION NUMBER: 1999:83191 HCAPLUS  
 DOCUMENT NUMBER: 130:222967  
 TITLE: Influence of remote intramolecular hydrogen bonds on



the thermodynamics of molecular recognition of  
 cis-1,3,5-cyclohexanetricarboxylic acid

AUTHOR(S): Ballester, Pablo; Costa, Antoni; Deya, Pere M.; Vega,  
 Manuel; Morey, Jeroni; Deslongchamps, Ghislain

CORPORATE SOURCE: Department de Quimica. Universitat de les Illes  
 Balears, Palma de Mallorca, 07071, Spain

SOURCE: Tetrahedron Letters (1999), 40(1), 171-174  
 CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

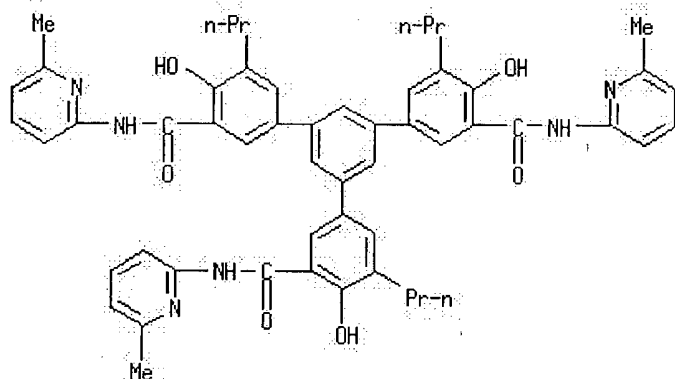
AB Variable temp. binding studies and isothermal titrn. microcalorimetry were  
 used to probe the thermodyn. of mol. recognition of cis-1,3,5-  
 cyclohexanetricarboxylic acid by tripodal hosts. Remote intramol.  
 hydrogen bonds, used to restrict conformationally one of the hosts,  
 exhibit a strong influence on the thermodyn. functions for the binding  
 process  $\Delta H$  and  $\Delta S$ , with little effect on  $\Delta G$ . This  
 suggests that the conformational lock imposed by the intramol. hydrogen  
 bonds organizes the receptor in a conformation that is not optimal for the  
 binding of the triacid.

IT 157460-60-1

RL: PEP (Physical, engineering or chemical process); PRP (Properties);  
 PROC (Process)  
 (effect of remote intramol. hydrogen bonds on the thermodyn. of mol.  
 recognition of cis-1,3,5-cyclohexanetricarboxylic acid)

RN 157460-60-1 HCAPLUS

CN [1,1':3',1''-Terphenyl]-3,3''-dicarboxamide, 4,4''-dihydroxy-5'-[4-hydroxy-  
 3-[[6-methyl-2-pyridinyl]amino]carbonyl]-5-propylphenyl]-N,N'-bis(6-  
 methyl-2-pyridinyl)-5,5''-dipropyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 89 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN



ACCESSION NUMBER: 1999:42574 HCAPLUS

DOCUMENT NUMBER: 130:95485

TITLE: Preparation of bisamides pyridinediamines as  
 antithrombotic agents

INVENTOR(S): Beight, Douglas Wade; Craft, Trelia Joyce;  
 Franciskovich, Jeffery Bernard; Goodson, Theodore, Jr.;  
 Hall, Steven Edward; Herron, David Kent; Klimkowski,  
 Valentine Joseph; Kyle, Jeffrey Alan; Masters, John  
 Joseph; Mendel, David; Milot, Guy; Sawyer, Jason  
 Scott; Shuman, Robert Theodore; Smith, Gerald Floyd;

Tebbe, Anne Louise; Tinsley, Jennifer Marie; Weir, Leonard Crayton; Wikel, James Howard; Wiley, Michael Robert; Yee, Ying Kwong

PATENT ASSIGNEE(S): Eli Lilly and Company, USA

SOURCE: PCT Int. Appl., 80 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

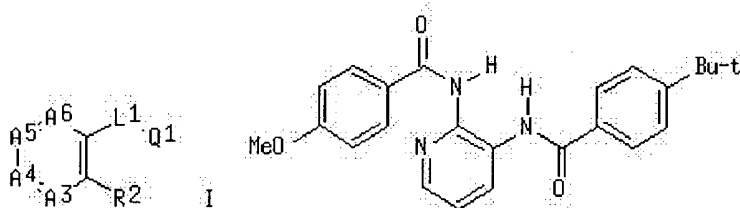
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>WO 9900126</u>	A1	19990107	<u>WO 1998-US13384</u>	19980626
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
<u>AU 9882693</u>	A1	19990119	<u>AU 1998-82693</u>	19980626
<u>EP 999834</u>	A1	20000517	<u>EP 1998-932911</u>	19980626
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
<u>JP 2002506462</u>	T2	20020226	<u>JP 1999-505809</u>	19980626
<u>US 6313151</u>	B1	20011106	<u>US 2000-445973</u>	20000331
<u>US 2002049234</u>	A1	20020425	<u>US 2001-967203</u>	20010928
<u>US 6586459</u>	B2	20030701		
<u>US 2002072531</u>	A1	20020613	<u>US 2001-967054</u>	20010928
<u>US 6583173</u>	B2	20030624		
<u>PRIORITY APPLN. INFO.:</u>			<u>US 1997-50881P</u>	P 19970626
			<u>WO 1998-US13384</u>	W 19980626
			<u>US 2000-445973</u>	A3 20000331

OTHER SOURCE(S): MARPAT 130:95485

GI



AB The title compds. [I; A3-A6 together with the two carbons to which they are attached = heterocyclic ring (in which (a) one of A3-A6 = N, and each of the others = CR3, CR4, CR5 or CR6, resp.; (b) two adjacent residues of A3-A6 together form S; (c) two non-adjacent residues of A3-A6 = N; (d) A3 and A4 together form a fused benzene ring, and A5 and A6 together form NH; each of R3-R6 = H, or one or two of R3-R6 = Cl, Br, Me and the others = H); L1 = NHCO, CONH; Q1 = (un)substituted Ph, 2-furanyl, 2-thienyl, etc.; R2 = 4-MeOC6H4CONH, 4-tBuC6H4CONH, etc.], useful as inhibitors of factor Xa, were prepd. and formulated. Thus, 3-step synthesis of II, starting with N3-(tert-butoxycarbonyl)-N2-(4-methoxybenzoyl)-2,3-pyridinediamine, was described. In general, compds. I exhibit a Kass of 0.1-0.5x10<sup>6</sup> L/Mol or much greater for human factor Xa.

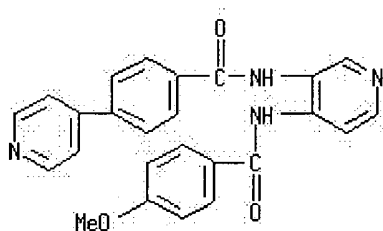
IT 219493-51-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);  
 BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. of bisamides pyridinediamines as antithrombotic agents)

RN 219493-51-3 HCAPLUS

CN Benzamide, N-[4-[(4-methoxybenzoyl)amino]-3-pyridinyl]-4-(4-pyridinyl)-  
 (9CI) (CA INDEX NAME)



REFERENCE COUNT:

7

THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 90 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN



ACCESSION NUMBER: 1999:17723 HCAPLUS

DOCUMENT NUMBER: 130:217600

TITLE: Three-Dimensional Quantitative Structure-Activity  
 Relationship Study on Cyclic Urea Derivatives as HIV-1  
 Protease Inhibitors: Application of Comparative  
 Molecular Field Analysis

AUTHOR(S): Debnath, Asim Kumar

CORPORATE SOURCE: Biochemical Virology Laboratory, Lindsley F. Kimball  
 Research Institute of The New York Blood Center, New  
 York, NY, 10021, USA

SOURCE: Journal of Medicinal Chemistry (1999), 42(2), 249-259  
 CODEN: JMCMAR; ISSN: 0022-2623

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Three-dimensional quant. structure-activity relationship (3D-QSAR) models have been developed using comparative mol. field anal. (CoMFA) on a large data set (118 compds.) of diverse cyclic urea derivs. as protease inhibitors against the human immunodeficiency virus type 1 (HIV-1). X-ray crystal structures of HIV-1 protease bound with this class of inhibitors were used to derive the most probable bioactive conformations of the inhibitors. The enzyme active site was used as a constraint to limit the no. of possible conformations that are sterically accessible. The test sets have been created keeping in mind structural diversity as well as the uniform simple statistical criteria (mean, std. deviation, high and low values) of the protease inhibitory activities of the mols. compared to the training sets. Multiple predictive models have been developed with the training sets (93 compds. in each set) and validated with the corresponding test sets (25 compds. in each set). All the models yielded high predictive correlation coeffs. (q2 from 0.699 to 0.727), substantially high fitted correlation coeffs. (r2 from 0.965 to 0.973), and reasonably low std. errors of ests. (S from 0.239 to 0.265). The steric and electrostatic effects have approx. equal contributions, 45% and 55% (approx.), resp., toward explaining protease inhibitory activities. This anal. yielded models with significant information on steric and electrostatic interactions clearly discerned by the resp. coeff. contour plots when overlapped on the X-ray structure of the HIV-1 protease. The HINT CoMFA study revealed significant contribution of hydrophobicity

toward protease inhibitory activity. The 3D visualization technique utilizing these contour plots as well as the receptor site geometry may significantly improve our understanding of the inhibitor-protease (HIV-1) interactions and help in designing compds. with improved activity.

IT **183854-97-9**

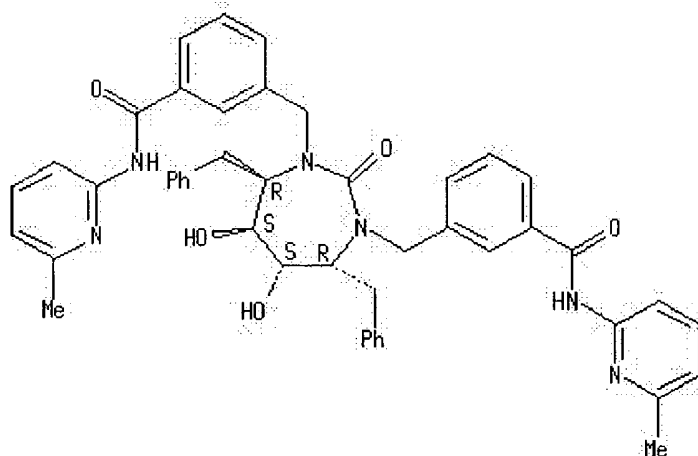
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(QSAR study on cyclic urea derivs. as HIV-1 protease inhibitors: application of comparative mol. field anal.)

RN 183854-97-9 HCAPLUS

CN Benzamide, 3,3'-[[ (4R,5S,6S,7R)-tetrahydro-5,6-dihydroxy-2-oxo-4,7-bis(phenylmethyl)-1H-1,3-diazepine-1,3(2H)-diyl]bis(methylene)]bis[N-(6-methyl-2-pyridinyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 91 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text References

ACCESSION NUMBER: 1998:782620 HCAPLUS  
 DOCUMENT NUMBER: 130:125047  
 TITLE: Stereospecific Synthesis, Structure-Activity Relationship, and Oral Bioavailability of Tetrahydropyrimidin-2-one HIV Protease Inhibitors  
 AUTHOR(S): De Lucca, George V.; Liang, Jing; De Lucca, Indawati  
 CORPORATE SOURCE: DuPont Pharmaceuticals Company, Wilmington, DE, 19880-0500, USA  
 SOURCE: Journal of Medicinal Chemistry (1999), 42(1), 135-152  
 CODEN: JMCMAR; ISSN: 0022-2623  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The use of tetrahydropyrimidinones as an alternate scaffold for designing HIVPR inhibitors has advantages, over the previously disclosed hexahydro-1,3-diazepin-2-ones, of being more unsym., less cryst., more sol., and more lipophilic. They show a better translation of  $K_i$  to  $IC_{90}$  for the more polar P2 groups that in general give the more potent enzyme inhibitors. Structure-activity relationship (SAR) studies of the tetrahydropyrimidinones showed that the phenylethyl P1' substituent, the hydroxyl group, and the urea carbonyl are all crit. for good activity.

However, there was significant flexibility in the possible P2/P2' substituents that could be used. Many analogs that contained identical or different P2/P2' substituents, or only one P2 substituent, had excellent enzyme potency and several had excellent antiviral potency. Several of these compds. were examd. for oral bioavailability in the rat or the dog at 10 mg/kg. However, the oral bioavailability of the tetrahydropyrimidinones was, in general, less than for the corresponding hexahydro-1,3-diazepin-2-ones. Unfortunately, when all factors are considered, including potency, protein binding, soly., bioavailability, and resistance profile, the tetrahydropyrimidinones did not offer any advantage over the previously disclosed hexahydro-1,3-diazepin-2-ones series.

IT **219941-25-0P**

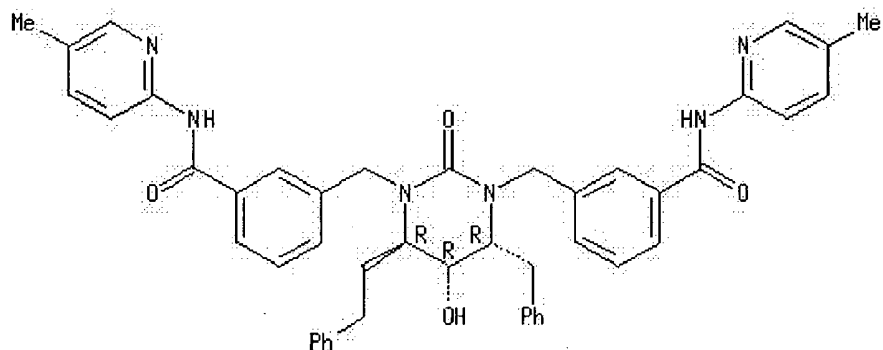
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(prepn., structure-activity relationship, and oral bioavailability of tetrahydropyrimidinone HIV protease inhibitors)

RN **219941-25-0** HCAPLUS

CN Benzamide, 3,3'-[[[(4R,5R,6R)-dihydro-5-hydroxy-2-oxo-4-(2-phenylethyl)-6-(phenylmethyl)-1,3(2H,4H)-pyrimidinediyl]bis(methylene)]bis[N-(5-methyl-2-pyridinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 92 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

**Full Text** **Cited References**

ACCESSION NUMBER: 1998:447028 HCAPLUS  
DOCUMENT NUMBER: 129:221600  
TITLE: Molecular Recognition on Functionalized Self-Assembled Monolayers of Alkanethiols on Gold  
AUTHOR(S): Moteshareei, Kianoush; Myles, David C.  
CORPORATE SOURCE: Department of Chemistry Biochemistry, University of California, Los Angeles, CA, 90095-1569, USA  
SOURCE: Journal of the American Chemical Society (1998), 120(29), 7328-7336  
CODEN: JACSAT; ISSN: 0002-7863  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB A system for probing mol. recognition events at org. interfaces using fluorescent receptors is described. Receptors formed from the bis(2,6-diaminopyridine) amide of isophthalic acid are incorporated in mixed self-assembled monolayers (SAMs) of alkanethiols on gold and shown

to interact with barbituric acid derivs. from soln. Individual parameters that affect the ability of receptors on surfaces to recognize ligands from soln. along with varieties of solvents for ligand solns. were examd.

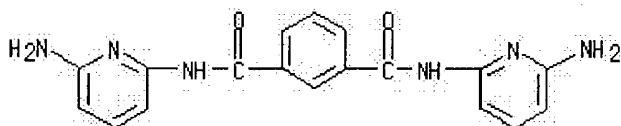
IT **112817-57-9P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(interaction of barbituric acid derivs. with mixed monolayers of alkanethiols and bis(2,6-diaminopyridine) amide of isophthalic acid-functionalized decanethiol on thin gold films)

RN **112817-57-9** HCAPLUS

CN **1,3-Benzenedicarboxamide, N,N'-bis(6-amino-2-pyridinyl)- (9CI)** (CA INDEX NAME)

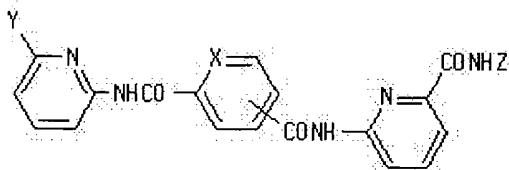


REFERENCE COUNT: 77 THERE ARE 77 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 93 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text References

ACCESSION NUMBER: 1998:423341 HCAPLUS  
DOCUMENT NUMBER: 129:189216  
TITLE: Synthetic analogs of netropsin and distamycin - synthesis of a new pyridine and carbocyclic analogs of the pyrrolecarboxamide antitumor antibiotics  
AUTHOR(S): Bartulewicz, Danuta; Bielawski, Krzysztof; Markowska, Agnieszka; Zwierz, Krzysztof; Puckowska, Anna; Rozanski, Andrzej  
CORPORATE SOURCE: Department of Organic Chemistry, Medical Academy, Bialystok, 15-230, Pol.  
SOURCE: Acta Biochimica Polonica (1998), 45(1), 41-57  
CODEN: ABPLAF; ISSN: 0001-527X  
PUBLISHER: Polish Biochemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI



I

AB A new series of pyridine-contg. analogs of distamycin A (I; X = N, C; Y = H, substituted pyridyl, CONH(CH<sub>2</sub>)<sub>3</sub>NMe<sub>2</sub>; Z = (CH<sub>2</sub>)<sub>n</sub>NMe<sub>2</sub>, substituted pyridyl; n = 2, 3) and netropsin was investigated by the mol. mechanics technique and mol. modeling. Some of I were prepd. as potential carriers of alkylating elements and carriers to place into the minor groove of DNA chem. groups capable of modifying DNA.

IT **189000-55-3P**

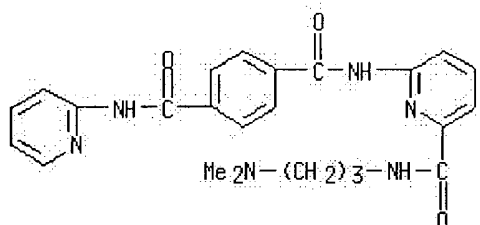
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); MSC (Miscellaneous); PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP

(Preparation); USES (Uses)

(synthetic analogs of netropsin and distamycin - synthesis of a new pyridine and carbocyclic analogs of the pyrrolecarboxamide antitumor antibiotics)

RN 189000-55-3 HCAPLUS

CN 1,4-Benzenedicarboxamide, N-[6-[[[3-(dimethylamino)propyl]amino]carbonyl]-2-pyridinyl]-N'-2-pyridinyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 94 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text References

ACCESSION NUMBER: 1998:421320 HCAPLUS

DOCUMENT NUMBER: 129:89888

TITLE: Comparative Molecular Field Analysis (CoMFA) of a Series of Symmetrical Bis-Benzamide Cyclic Urea Derivatives as HIV-1 Protease Inhibitors

AUTHOR(S): Debnath, Asim Kumar

CORPORATE SOURCE: Biochemical Virology Laboratory Lindsley F. Kimball Research Institute, New York Blood Center, New York, NY, 10021, USA

SOURCE: Journal of Chemical Information and Computer Sciences (1998), 38(4), 761-767

CODEN: JCISD8; ISSN: 0095-2338

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A 3D-QSAR study using CoMFA methodol. was conducted on a series of 29 sym. bis-benzamide cyclic urea derivs. having anti-HIV-1-protease activities. Active site minimization of the ligands was used to exclude conformations which are not sterically accessible within the active site. A significant cross-validated correlation coeff.  $q^2$  (0.724) was obtained indicating the predictive potential of the model for untested compds. of this class. A significant non-cross-validated correlation coeff. ( $r^2$ ) of 0.971 with a low std. error est. (S) of 0.119 was obtained indicating that the model reliably predicted the anti-protease activities of poorly to highly active compds. The model was used to predict the anti-protease activities of 8 test-set compds., and the predicted values were in good agreement with the exptl. values. The CoMFA coeff. contour plots identified several key features which explain the wide range of activities. The already reported 2D-QSAR along with the CoMFA model presented here may help in designing effective HIV-1 protease inhibitors.

IT 183854-97-9

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

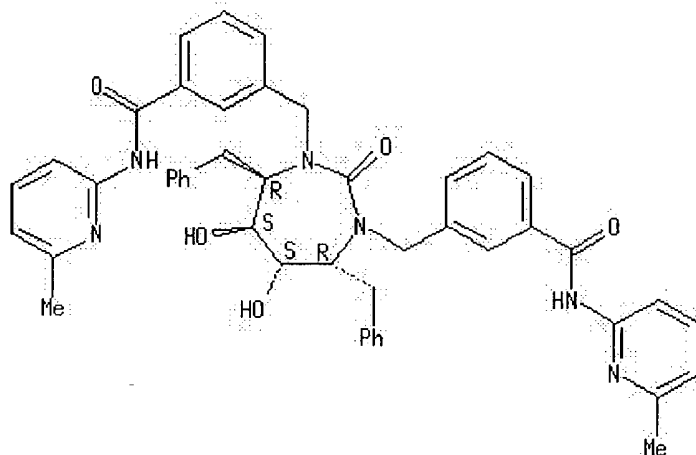
(CoMFA of bisbenzamide cyclic ureas as HIV-1 protease inhibitors)

RN 183854-97-9 HCAPLUS

CN Benzamide, 3,3'-[[[(4R,5S,6S,7R)-tetrahydro-5,6-dihydroxy-2-oxo-4,7-bis(phenylmethyl)-1H-1,3-diazepine-1,3(2H)-diyl]bis(methylene)]bis[N-(6-

methyl-2-pyridinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

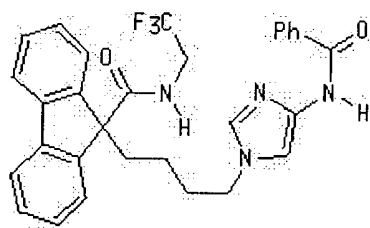
L12 ANSWER 95 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
Citing References

ACCESSION NUMBER: 1998:372652 HCAPLUS  
DOCUMENT NUMBER: 129:54368  
TITLE: Preparation of 9-heterocyclalkyl-9-fluorene-carboxamides and analogs as microsomal triglyceride transfer protein inhibitors  
INVENTOR(S): Biller, Scott A.; Dickson, John K.; Lawrence, R. Michael; Magnin, David R.; Poss, Michael A.; Robl, Jeffrey A.; Slusarchyk, William A.; Sulsky, Richard B.; Tino, Joseph A.  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S., 240 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5760246	A	19980602	US 1996-767923	19961217
US 6472414	B1	20021029	US 1999-313883	19990518
PRIORITY APPLN. INFO.:			US 1996-767923	A1 19961217
			US 1997-802705	B1 19970219
OTHER SOURCE(S):	MARPAT 129:54368			
GI				





I

AB Title compds., e.g., R1Z1BCOAZ2R2 [A = bond, O, (alkyl)imino; B = e.g., C(ZR)2 in which RR = bond, O, NH, alk(en)ylene, etc., and Z = (un)substituted 1,2-phenylene; R1 = H, alk(en)yl, (hetero)aryl, etc.; R1 = groups cited for R1, haloalkyl, etc.; Z1 = (oxo- or aza)(oxo)alk(en)ylene, etc.; Z2 = bond, groups cited for Z1, etc.] were prepd. as microsomal triglyceride transfer protein inhibitors (no data). Thus, 9-fluorene-9-carboxylic acid was alkylated by Br(CH<sub>2</sub>)<sub>4</sub>Br and the CF<sub>3</sub>CH<sub>2</sub>NH<sub>2</sub>-amidated product arylated by 4-nitroimidazole to give, after redn. and N-acylation, title compd I.

IT 194214-02-3P

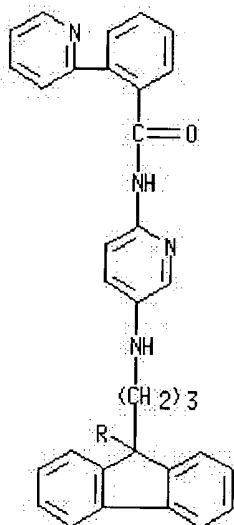
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of 9-heterocyclylalkyl-9-fluorene-9-carboxamides and analogs as microsomal triglyceride transfer protein inhibitors)

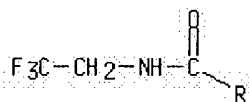
RN 194214-02-3 HCAPLUS

CN 9H-Fluorene-9-carboxamide, 9-[3-[[6-[[2-(2-pyridinyl)benzoyl]amino]-3-pyridinyl]aminolpropyl]-N-(2,2,2-trifluoroethyl)-, dihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



# 2 HCl

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 96 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text      Cited References

ACCESSION NUMBER: 1998:331766 HCAPLUS  
 DOCUMENT NUMBER: 129:89939  
 TITLE: Resistance to HIV Protease Inhibitors: A Comparison of Enzyme Inhibition and Antiviral Potency  
 AUTHOR(S): Klabe, Ronald M.; Bacheler, Lee T.; Ala, Paul J.; Erickson-Viitanen, Susan; Meek, James L.  
 CORPORATE SOURCE: Departments of Virology and of Physical and Chemical Sciences, DuPont Merck Pharmaceutical Company, Wilmington, DE, 19880-0336, USA  
 SOURCE: Biochemistry (1998), 37(24), 8735-8742  
 CODEN: BICHAW; ISSN: 0006-2960  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Resistance of HIV-1 to protease inhibitors has been assocd. with changes at residues Val82 and Ile84 of HIV-1 protease (HIV PR). Using both an enzyme assay with a peptide substrate and a cell-based infectivity assay, we examd. the correlation between the inhibition consts. for enzyme activity ( $K_i$  values) and viral replication ( $IC_{90}$  values) for 5 active site mutants and 19 protease inhibitors. Four of the five mutations studied (V82F, V82A, I84V, and V82F/I84V) had been identified as conferring resistance during in vitro selection using a protease inhibitor. The mutant protease genes were expressed in *Escherichia coli* for prepn. of enzyme, and inserted into the HXB2 strain of HIV for test of antiviral activity. The inhibitors included saquinavir, indinavir, nelfinavir, 141W94, ritonavir (all in clin. use), and 14 cyclic ureas with a const. core structure and varying P2, P2' and P3, P3' groups. The single mutations V82F and I84V caused changes with various inhibitors ranging from 0.3- to 86-fold in  $K_i$  and from 0.1- to 11-fold in  $IC_{90}$ . Much larger changes compared to wild type were obsd. for the double mutation V82F/I84V both for  $K_i$  (10-2000-fold) and for  $IC_{90}$  (0.7-377-fold). However, there were low correlations ( $r^2 = 0.017-0.53$ ) between the mutant/wild-type ratio of  $K_i$  values (enzyme resistance) and the mutant/wild-type ratio of viral  $IC_{90}$  values (antiviral resistance) for each of the HIV proteases and the viruses contg. the identical enzyme. Assessing enzyme resistance by "vitality values", which adjust the  $K_i$  values with the catalytic efficiencies ( $k_{cat}/K_m$ ), caused no significant improvement in the correlation with antiviral resistance. Therefore, our data suggest that measurements of enzyme inhibition with mutant proteases may be poorly predictive of the antiviral effect in resistant viruses even when mutations are restricted to the protease gene.

IT 183854-97-9

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

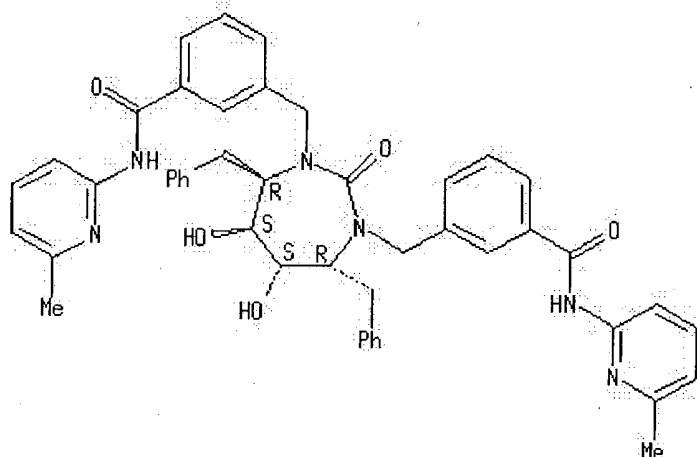
(resistance to HIV protease inhibitors and comparison of enzyme

inhibition and antiviral potency using mutant proteases)

RN 183854-97-9 HCAPLUS

CN Benzamide, 3,3'-[[ (4R,5S,6S,7R)-tetrahydro-5,6-dihydroxy-2-oxo-4,7-bis(phenylmethyl)-1H-1,3-diazepine-1,3(2H)-diyl]bis(methylene)]bis[N-(6-methyl-2-pyridinyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 97 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text Citations

ACCESSION NUMBER: 1998:324820 HCAPLUS  
DOCUMENT NUMBER: 129:16148  
TITLE: Preparation of tricyclic benzodiazepines as vasopressin antagonists  
INVENTOR(S): Albright, Jay Donald; Venkatesan, Aranapakam M.; Dusza, John P.; Sum, Fuk-wah  
PATENT ASSIGNEE(S): American Cyanamid Co., USA  
SOURCE: U.S., 119 pp., Cont.-in-part of U.S. 5,536,718.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 4  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5753648	A	19980519	US 1996-672150	19960627
US 5536718	A	19960716	US 1995-373132	19950117
CA 2258885	AA	19971231	CA 1997-2258885	19970620
WO 9749707	A1	19971231	WO 1997-US10736	19970620
W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, GH, HU, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TR, TT, UA, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9734063	A1	19980114	AU 1997-34063	19970620
AU 731925	B2	20010405		
EP 915876	A1	19990519	EP 1997-930167	19970620

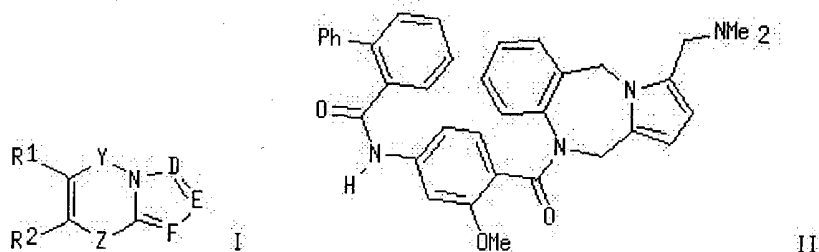
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE,  
SI, LT, LV, FI, RO

<u>BR 9710087</u>	A	19990810	<u>BR 1997-10087</u>	19970620
<u>CN 1231666</u>	A	19991013	<u>CN 1997-197413</u>	19970620
<u>JP 2000510154</u>	T2	20000808	<u>JP 1998-503379</u>	19970620
<u>NZ 332605</u>	A	20000929	<u>NZ 1997-332605</u>	19970620
<u>KR 2000022297</u>	A	20000425	<u>KR 1998-710719</u>	19981228

PRIORITY APPLN. INFO.:

<u>US 1995-373132</u>	A2	19950117
<u>US 1996-672150</u>	A	19960627
<u>WO 1997-US10736</u>	W	19970620

OTHER SOURCE(S):           MARPAT 129:16148  
GI



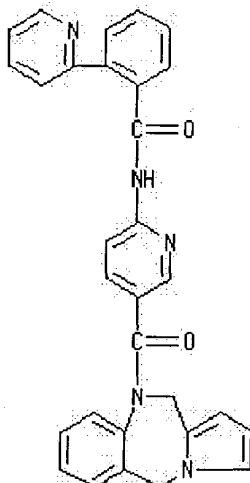
AB Title compds. [I; D,E,F = N or (un)substituted CH; R1R2 = atoms to complete an(un)substituted (hetero)arom. ring; Y = bond, CH2, CH2CH2, CO, alkylidene; Z = (CH2)mNR3 or NR3(CH2)m; R3 = COZ1R6; R6 = acylamino, etc.; Z1 = (un)substituted 1,4-phenylene or -3,6-pyridinediyl; m = 1 or 2] were prepd. Thus, 1-(2-nitrobenzyl)pyrrole-2-carboxaldehyde (prepn. given) was reductively cyclized and the product N-acylated by 2-PhC6H4CONHC6H4(OMe)(CO2H)-3,4 (prepn. given) to give, after condensation with HCHO/CH2(NMe2)2, title compd. II. Data for biol. activity of I were given.

IT **200878-81-5P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of tricyclic benzodiazepines as vasopressin antagonists)

RN 200878-81-5 HCAPLUS

CN Benzamide, N-[5-(5H-pyrrolo[2,1-c][1,4]benzodiazepin-10(11H)-ylcarbonyl)-2-pyridinyl]-2-(2-pyridinyl)- (9CI) (CA INDEX NAME)



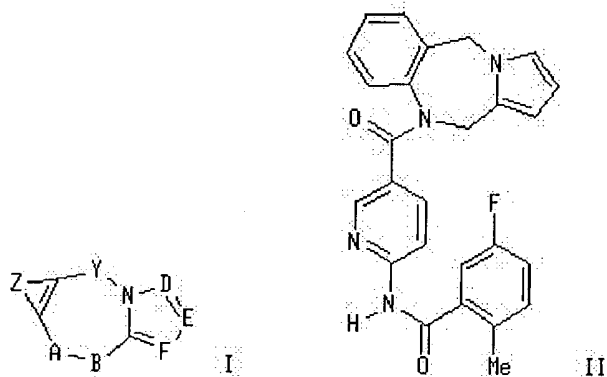
REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 98 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
Cited References

ACCESSION NUMBER: 1998:8260 HCAPLUS  
DOCUMENT NUMBER: 128:88934  
TITLE: Preparation of tricyclic benzazepine vasopressin antagonists  
INVENTOR(S): Albright, Jay Donald; Venkatesan, Aranapakam M.; Dusza, John P.; Sum, Fuk-wah  
PATENT ASSIGNEE(S): American Cyanamid Co., USA  
SOURCE: U.S., 64 pp., Cont.-in-part of U.S. 5,536,718.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 4  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5700796	A	19971223	US 1996-671442	19960627
US 5536718	A	19960716	US 1995-373132	19950117
WO 9749708	A1	19971231	WO 1997-US10755	19970620
W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, GH, HU, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TR, TT, UA, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9736414	A1	19980114	AU 1997-36414	19970620
PRIORITY APPLN. INFO.:			US 1995-373132	A2 19950117
			US 1996-671442	A 19960627
			WO 1997-US10755	W 19970620
OTHER SOURCE(S):		MARPAT 128:88934		
GI				



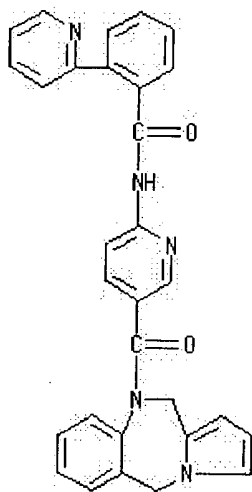
AB The title compds. [I; Y = (CH<sub>2</sub>)<sub>n</sub> (n = 0-2), CH(C1-3 alkyl), C(O); AB = (CH<sub>2</sub>)<sub>m</sub>NR<sub>3</sub>, NR<sub>3</sub>(CH<sub>2</sub>)<sub>m</sub> (m = 1-2; R<sub>3</sub> = C(O)Ar; Ar = (un)substituted Ph, 3-pyridyl); Z with two carbon atoms attached = (un)substituted Ph, a 5-membered arom. heterocyclic ring having one heteroatom selected from O, N, S, a 6-membered arom. heterocyclic ring having one N atom, etc.; D, E, F = C, N], which exhibit antagonist activity at V1 and/or V2 receptors, in vivo vasopressin antagonist activity, and oxytocin antagonist activity, and are useful in treating diseases characterized by excess renal reabsorption of water, were prepd. Thus, treatment of 6-[(5-fluoro-2-methylbenzoyl)amino]pyridine-3-carboxylic acid with SOCl<sub>2</sub> followed by reaction of the resulting acid chloride with 10,11-dihydro-5H-pyrrolo[2,1-c][1,4]benzodiazepine afforded the title compd. II which showed IC<sub>50</sub> of 0.033 μM against rat hepatic V1 receptors binding and IC<sub>50</sub> of 0.004 μM against rat kidney medullary V2 receptors binding.

IT **200878-81-5P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of tricyclic benzazepine vasopressin antagonists)

RN **200878-81-5** HCAPLUS

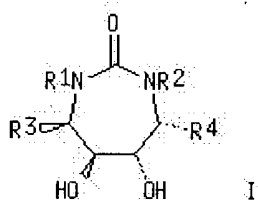
CN Benzamide, N-[5-(5H-pyrrolo[2,1-c][1,4]benzodiazepin-10(11H)-ylcarbonyl)-2-pyridinyl]-2-(2-pyridinyl)- (9CI) (CA INDEX NAME)





ACCESSION NUMBER: 1997:735797 HCAPLUS  
 DOCUMENT NUMBER: 128:22928  
 TITLE: Preparation of cyclic urea HIV protease inhibitors  
 INVENTOR(S): Jadhav, Prabhakar Kondaji; Ko, Soo Sung  
 PATENT ASSIGNEE(S): Dupont Merck Pharmaceutical Co., USA  
 SOURCE: U.S., 68 pp., Cont.-in-part of U.S. Ser. No. 406,240, abandoned.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5683999	A	19971104	US 1996-613554	19960311
CA 2215536	AA	19960926	CA 1996-2215536	19960313
WO 9629329	A1	19960926	WO 1996-US3426	19960313
W: AU, BR, CA, CN, CZ, EE, HU, JP, KR, LT, LV, MX, NO, NZ, PL, RO, SG, SI, SK, UA, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9653100	A1	19961008	AU 1996-53100	19960313
EP 815108	A1	19980107	EP 1996-909680	19960313
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
ZA 9602133	A	19970915	ZA 1996-2133	19960315
PRIORITY APPLN. INFO.:				
			US 1995-406240	B2 19950317
			US 1996-613554	A 19960311
			WO 1996-US3426	W 19960313
OTHER SOURCE(S): MARPAT 128:22928				
GI				



AB Cyclic ureas I [R1 = CH2XYZ; X = alkyl, aryl, cycloalkyl, etc.; Y = (CH2)nO, (CH2)nS, (CH2)nC(:NH)NH, etc.; n = 0-2; Z = 2-, 3-, or 4-pyridyl, 2-pyrazinyl, etc.; R2 = R1, CH2XY1Z1, H, etc. Y1 = (CH2)nO(CH2)m, (CH2)nS(CH2)m, etc.; Z1 = H, alkyl, alkenyl, aryl, etc.; R3, R4 = benzyl, 2-pyrrolylmethyl, Et, iso-Bu, hexyl, etc.] useful as inhibitors of HIV protease (no data), were prepd. The present invention also relates to pharmaceutical compns. comprising such compds. and to method of using these compds. for the treatment HIV infection. The present invention also relates to the use of such compds. in processes for the identification of HIV protease inhibitors and for the inhibition or detection of HIV in a bodily fluid sample (no data).

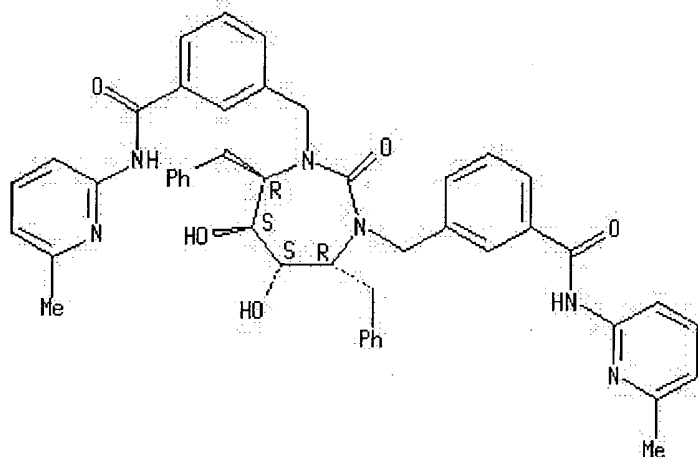
IT 183854-97-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. of cyclic urea HIV protease inhibitors)

RN 183854-97-9 HCAPLUS

CN Benzamide, 3,3'-[[[(4R,5S,6S,7R)-tetrahydro-5,6-dihydroxy-2-oxo-4,7-bis(phenylmethyl)-1H-1,3-diazepine-1,3(2H)-diyl]bis(methylene)]bis[N-(6-methyl-2-pyridinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L12 ANSWER 100 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text References

ACCESSION NUMBER: 1997:727376 HCAPLUS  
DOCUMENT NUMBER: 128:30079  
TITLE: Nonsymmetrically Substituted Cyclic Urea HIV Protease Inhibitors  
AUTHOR(S): Wilkerson, Wendell W.; Dax, Scott; Cheatham, Walter W.  
CORPORATE SOURCE: DuPont Merck Pharmaceutical Company, Wilmington, DE, 19880-0500, USA  
SOURCE: Journal of Medicinal Chemistry (1997), 40(25), 4079-4088  
CODEN: JMCMAR; ISSN: 0022-2623  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB A series of nonsym. substituted cyclic urea carboxamides was synthesized and evaluated for antiviral activity as a function of the inhibition of HIV-protease. Selected protease inhibitors were also evaluated for oral bioavailability. The synthesis, pharmacol., quant. structure-activity relationship (QSAR), and pharmacokinetics for the series will be discussed.

IT 199738-20-0P

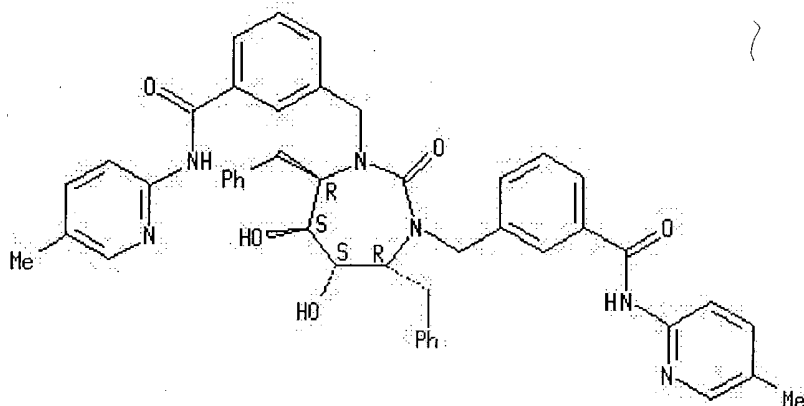
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)  
(prepn. of substituted cyclic ureas as HIV protease inhibitors)

RN 199738-20-0 HCAPLUS

CN Benzamide, 3,3'-[[[tetrahydro-5,6-dihydroxy-2-oxo-4,7-bis(phenylmethyl)-1H-1,3-diazepine-1,3(2H)-diyl]bis(methylene)]bis[N-(5-methyl-2-pyridinyl)-, (4 $\alpha$ ,5 $\alpha$ ,6 $\beta$ ,7 $\beta$ )- (9CI) (CA INDEX NAME)

Relative stereochemistry.





REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 101 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text Citations  
References

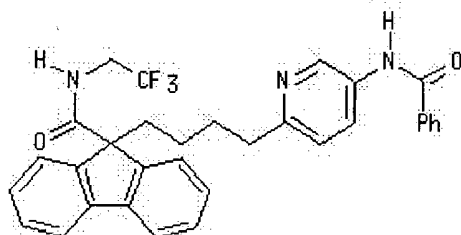
ACCESSION NUMBER: 1997:499168 HCAPLUS  
DOCUMENT NUMBER: 127:190649  
TITLE: Preparation of 9-aralkyl-9-fluorene-carboxamides and analogs as microsomal triglyceride transfer protein inhibitors  
INVENTOR(S): Biller, Scott A.; Dickson, John K.; Lawrence, R. Michael; Magnin, David R.; Poss, Michael A.; Robl, Jeffrey A.; Slusarchyk, William A.; Sulsky, Richard B.; Tino, Joseph A.  
PATENT ASSIGNEE(S): Bristol-Myers Squibb Co., USA  
SOURCE: PCT Int. Appl., 615 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9726240	A1	19970724	WO 1997-US587	19970113
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2236684	AA	19970724	CA 1997-2236684	19970113
AU 9718285	A1	19970811	AU 1997-18285	19970113
AU 716729	B2	20000302		
CN 1209803	A	19990303	CN 1997-191713	19970113
EP 904262	A1	19990331	EP 1997-903805	19970113
EP 904262	B1	20040421		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
BR 9707607	A	19990727	BR 1997-7607	19970113
JP 2000502355	T2	20000229	JP 1997-526127	19970113
NZ 330216	A	20000929	NZ 1997-330216	19970113
AT 264833	E	20040515	AT 1997-903805	19970113

<u>ZA 9700328</u>	A	19970715	<u>ZA 1997-328</u>	19970115
<u>NO 9803268</u>	A	19980715	<u>NO 1998-3268</u>	19980715
<u>PRIORITY APPLN. INFO.:</u>			<u>US 1996-10346P</u>	P 19960116
			<u>US 1996-17224P</u>	P 19960509
			<u>US 1996-30370P</u>	P 19961105
			<u>WO 1997-US587</u>	W 19970113

OTHER SOURCE(S):           MARPAT 127:190649

GI



AB R2Z4Z3ZZ2Z1R1 [R1 = H, (cyclo)alk(en)yl, alkoxy, (hetero)aryl(oxy), etc.; R2 = groups cited for R1, haloalkyl, etc.; Z = CO, SO0-2, CR(OH); R = H, alkyl, aryl; Z1 = (O- or NH-interrupted)(oxo)alk(en)ylene, etc.; Z2 = (un)substituted 9H-fluoren-9-ylidene, 9H-xanthen-9-ylidene, etc.; Z3 = bond, O, NR5; R5 = H or alkyl; R2R5 = atoms to form a ring; Z4 = bond, groups cited for Z1] were prepd as microsomal triglyceride transfer protein inhibitors (no data). Thus, 9H-fluorene-9-carboxylic acid was alkylated by TsOCH2CH2C≡CH and the product amidated by H2NCH2CF3 9-(3-butynyl)-N-(2,2,2-trifluoroethyl)fluorene-9-carboxamide which was arylated by 2-bromo-5-nitropyridine to give, after redn. and BzCl amidation, title compd. I.

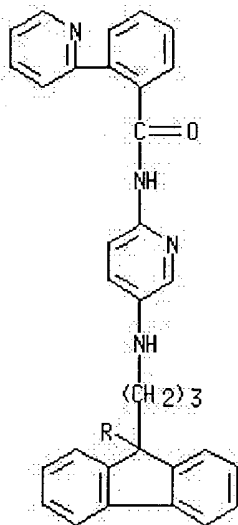
IT **194214-02-3P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of 9-aralkyl-9-fluorene-carboxamides and analogs as microsomal triglyceride transfer protein inhibitors)

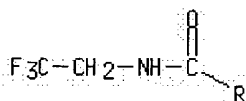
RN 194214-02-3 HCAPLUS

CN 9H-Fluorene-9-carboxamide, 9-[3-[[6-[[2-(2-pyridinyl)benzoyl]amino]-3-pyridinyl]amino]propyl]-N-(2,2,2-trifluoroethyl)-, dihydrochloride (9CI)  
(CA INDEX NAME)

PAGE 1-A



PAGE 2-A



# 2 HCl

L12 ANSWER 102 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text	Search References
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ACCESSION NUMBER: 1997:261509 HCAPLUS  
DOCUMENT NUMBER: 127:28386  
TITLE: Selective membrane transport of dicarboxylic acids in their neutral form by a synthetic receptor containing amidopyridine groups  
AUTHOR(S): Palet, Cristina; Munoz, Maria; Valiente, Manuel; Cynkowski, Tadeusz; Daunert, Sylvia; Bachas, Leonidas G.  
CORPORATE SOURCE: Quimica Analitica, Universitat Autònoma de Barcelona, 08193 Bellaterra, Barcelona, Spain  
SOURCE: Analytica Chimica Acta (1997), 343(3), 287-294  
CODEN: ACACAM; ISSN: 0003-2670  
PUBLISHER: Elsevier  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB A synthetic receptor that can discriminate dicarboxylic acids based on host-guest principles was prepd. This compd. incorporates two amidopyridine units as hydrogen-bonding centers that are capable of binding the carboxylic acid functional group. The receptor was dissolved in a kerosine/dodecanol mixt. and used as a carrier in supported liq. membranes. Facilitated transport based on the liq.-liq. distribution of dicarboxylic acids between aq. feed and stripping solns. and an org. phase contg. the carrier was accomplished. This transport was driven by a pH gradient that assures the predominance of the protonated neutral form of the carboxylic acids in the feed soln. and the corresponding deprotonated

form in the stripping soln. Selective transport of dicarboxylic acids was obsd. allowing for an efficient sepn. of different carboxylic acids.

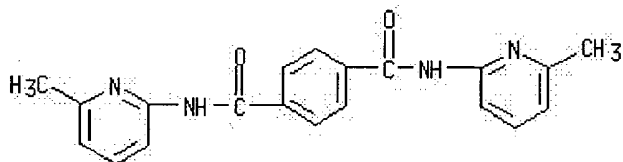
IT **129708-38-9P**

RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)

(selective membrane transport of dicarboxylic acids in their neutral form by using synthetic receptor contg. amidopyridine groups)

RN 129708-38-9 HCAPLUS

CN 1,4-Benzenedicarboxamide, N,N'-bis(6-methyl-2-pyridinyl)- (9CI) (CA INDEX NAME)



L12 ANSWER 103 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
References

ACCESSION NUMBER: 1997:256031 HCAPLUS

DOCUMENT NUMBER: 126:343288

TITLE: Molecular recognition: a simple dinaphthyridine receptor for urea. [Erratum to document cited in CA126:277143]

AUTHOR(S): Goswami, S.; Mukherjee, R.

CORPORATE SOURCE: Dep. Chem., Indian Inst. Technol., Kharagpur, 721302, India

SOURCE: Tetrahedron Letters (1997), 38(14), 2391

CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB On page 1621, in the eleventh line, 2-Oxobutyryldehyde should read 3-Oxobutyryldehyde. On page 1622, in ref. 14, the year should be 1965, not 1995.

IT **188916-88-3**

RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)

(NMR of truncated bipyridyl receptor complex with urea and imidazolidinone (Erratum))

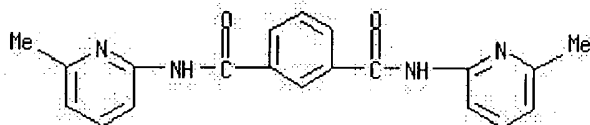
RN 188916-88-3 HCAPLUS

CN 1,3-Benzenedicarboxamide, N,N'-bis(6-methyl-2-pyridinyl)-, compd. with 2-imidazolidinone (1:1) (9CI) (CA INDEX NAME)

CM 1

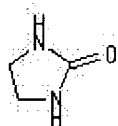
CRN 130760-57-5

CMF C20 H18 N4 O2



CM 2

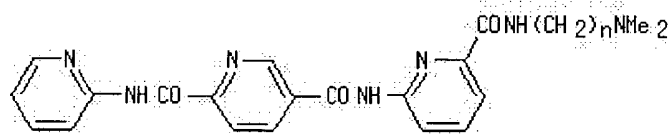
CRN 120-93-4  
CMF C3 H6 N2 O



L12 ANSWER 104 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

**Full Text** **CHEM**  
**References**

ACCESSION NUMBER: 1997:232915 HCAPLUS  
DOCUMENT NUMBER: 126:293206  
TITLE: Synthetic analogs of netropsin and distamycin. I. Pyridine-containing analogs of distamycin - a molecular modeling study  
AUTHOR(S): Bielawski, Krzysztof; Bartulewicz, Danuta; Rozanski, Andrzej  
CORPORATE SOURCE: Department of Organic Chemistry, Institute of Chemistry, Medical Academy of Bialystok, Pol.  
SOURCE: Roczniki Akademii Medycznej w Bialymstoku (1995), 40(2), 352-363  
CODEN: RAMBFJ  
PUBLISHER: Akademia Medyczna w Bialymstoku  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI



I

AB A new series of pyridine-contg. analogs of distamycin A were investigated by mol. modeling. Mol. mechanics techniques revealed evident structural similarities between analogs I [X = N, CH; n = 2, 3] and pyridine-2-carboxamide-netropsin, suggesting possible interactions of these compds. with DNA. Mol. modeling to the B-DNA d(CGCAGCTTTGCG) duplex shows that I [X = N, n = 3, II] fits tightly into the minor groove. The pattern of hydrogen bonds in the computed complex covers C6·G19, T7·A18, T8·A17, and T9·A16. The most striking feature of the II·DNA (1:1) complex is the recognition of the guanine amino group (G19) by the pyridine nitrogen of II.

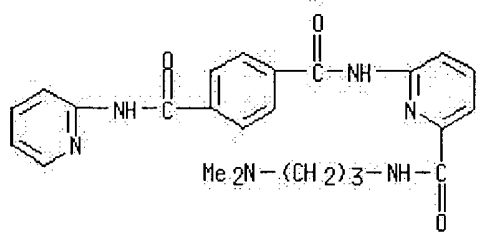
IT 189000-55-3

RL: PRP (Properties)

(mol. modeling study of pyridine-contg. analogs of distamycin)

RN 189000-55-3 HCAPLUS

CN 1,4-Benzenedicarboxamide, N-[6-[[[3-(dimethylamino)propyl]amino]carbonyl]-2-pyridinyl]-N'-2-pyridinyl- (9CI) (CA INDEX NAME)



L12 ANSWER 105 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text      References

ACCESSION NUMBER: 1997:231030 HCAPLUS  
 DOCUMENT NUMBER: 126:271318  
 TITLE: Assembling Organic Receptors around Transition Metal  
 Templates: Functionalized Catechols and  
 Dioxomolybdenum(VI) for the Recognition of  
 Dicarboxylic Acids  
 AUTHOR(S): Prevot-Halter, Isabelle; Smith, Thomas J.; Weiss, Jean  
 CORPORATE SOURCE: Laboratoire d'Electrochimie Faculte de Chimie, URA no.  
 405 au CNRS Universite Louis Pasteur, Strasbourg,  
 F-67000, Fr.  
 SOURCE: Journal of Organic Chemistry (1997), 62(7), 2186-2192  
 CODEN: JOCEAH; ISSN: 0022-3263  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The synthesis of two receptors for dicarboxylic acids MoO<sub>2</sub>(1)<sub>2</sub> [12]<sub>2</sub>- and MoO<sub>2</sub>(2)<sub>2</sub> [13]<sub>2</sub>-, based on the self arrangement of two functionalized catechols (OH)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>(p- or m-)C<sub>6</sub>H<sub>4</sub>CONH(C<sub>5</sub>H<sub>3</sub>N)Me 1 or 2 around a cis-[MoO<sub>2</sub>]<sub>2</sub>- core, is described. Among the three pairs of enantiomers which may be produced during the complexation of two unsym. catecholates around one Mo(IV) ion, only one is obsd. for each catechol deriv. 1 or 2. Depending on the base used during the complexation of catechols to the Mo atom, the dianionic receptors obtained display different soly. properties. These Mo-based receptors are chromogenic and, in CH<sub>2</sub>Cl<sub>2</sub>, the affinities of the assembled receptors for dicarboxylic acids ranging from C<sub>4</sub> to C<sub>8</sub> were assessed by UV-visible titrns. after detg. the stoichiometry of the complex formation using Job's method. While receptor [12]<sub>2</sub>- displays selectivity for C<sub>4</sub> and C<sub>5</sub> acids, the more flexible receptor [13]<sub>2</sub>- exhibits selectivity for C<sub>7</sub> and C<sub>8</sub>. The binding mode of the diacids to the Mo receptor was detd. based on <sup>1</sup>H NMR titrn. Due to the intrinsic chirality of the receptors, their binding properties vs. chiral dicarboxylic acid were examd. The enantioselective binding of N-Cbz protected L and D-glutamic acid due to addnl. π-π interactions of the protecting group with the receptor's framework is reported for [12]<sub>2</sub>- in CH<sub>2</sub>Cl<sub>2</sub>. For comparison, the assocn. consts. of receptor [12]<sub>2</sub>- with a Boc protected L-glutamic acid and the racemic mixt. of N-carbobenzyloxy protected glutamic acid were detd.

IT 174878-42-3P

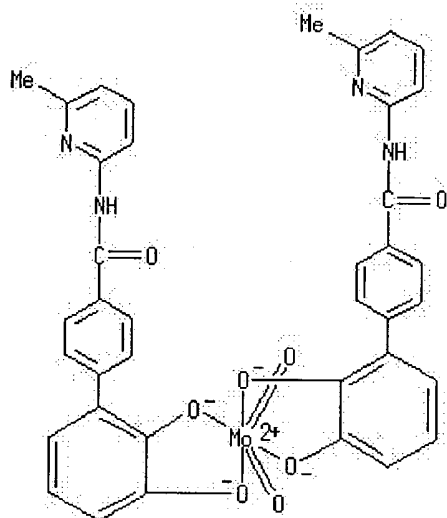
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (mol. recognition of dicarboxylic acids by dioxomolybdenum complexes of functionalized catechols)

RN 174878-42-3 HCAPLUS

CN 1-Butanaminium, N,N,N-tributyl-, (OC-6-33)-bis[2',3'-di(hydroxy-κO)-N-(6-methyl-2-pyridinyl)[1,1'-biphenyl]-4-carboxamidato(2-)]dioxomolybdate(2-) (2:1) (9CI) (CA INDEX NAME)

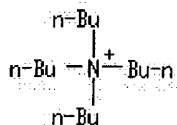
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CRN 174878-41-2  
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 CCI CCS



CM 2

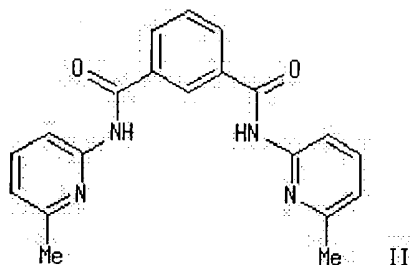
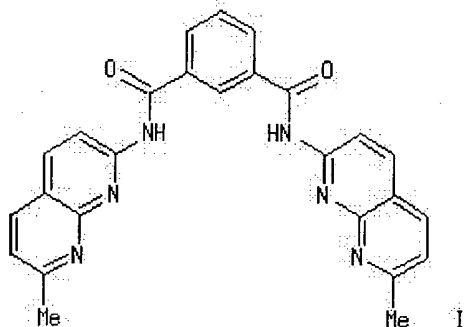
CRN 10549-76-5  
 CMF C16 H36 N



L12 ANSWER 106 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text References

ACCESSION NUMBER: 1997:169822 HCAPLUS  
 DOCUMENT NUMBER: 126:277143  
 TITLE: Molecular recognition: a simple dinaphthyridine receptor for urea  
 AUTHOR(S): Goswami, Shyamprosad; Mukherjee, Rakhi  
 CORPORATE SOURCE: Dep. Chem., Indian Inst. Technol., Kharagpur, 721302, India  
 SOURCE: Tetrahedron Letters (1997), 38(9), 1619-1622  
 CODEN: TELEAY; ISSN: 0040-4039  
 PUBLISHER: Elsevier  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



AB A new dinaphthyridine receptor I is designed that efficiently binds to urea probably by six hydrogen bonds forming a chloroform sol. 1:1 complex and selectively exts. urea into chloroform from its mixt. with thiourea. The receptor I has fifteen fold higher binding const. for urea than the truncated receptor II possibly due to formation of greater no. of hydrogen bonds in complexation.

IT 188916-88-3

RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)

(NMR of truncated bipyridyl receptor complex with urea and imidazolidinone)

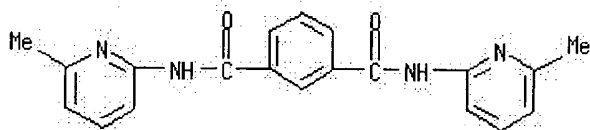
RN 188916-88-3 HCAPLUS

CN 1,3-Benzenedicarboxamide, N,N'-bis(6-methyl-2-pyridinyl)-, compd. with 2-imidazolidinone (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 130760-57-5

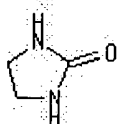
CMF C20 H18 N4 O2



CM 2

CRN 120-93-4

CMF C3 H6 N2 O





REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 107 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full  
Text

Citing  
References

ACCESSION NUMBER: 1997:168937 HCAPLUS  
DOCUMENT NUMBER: 126:231713  
TITLE: X-ray structure of the 1:1 complex of a tripodal receptor and cis-cyclohexane-1,3,5-tricarboxylic acid  
AUTHOR(S): Ballester, Pablo; Costa, Antoni; Deya, Pere M.; Deslongchamps, Ghislain; Mink, Daniel; Decken, Andreas; Prohens, Rafael; Tomas, Salvador; Vega, Manuel  
CORPORATE SOURCE: Dep. Quim., Univ. de les Illes Balears, Palma de Mallorca, 07071, Spain  
SOURCE: Chemical Communications (Cambridge) (1997), (4), 357-358  
CODEN: CHCOFS; ISSN: 1359-7345  
PUBLISHER: Royal Society of Chemistry  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The x-ray crystal structure of 1:1 complex of a tripodal abiotic receptor and cis-cyclohexane-1,3,5-tricarboxylic acid is reported; the 1:1 complex is devoid of C3-symmetry and packs into a multi-columnar self-assembly. Crystallog. data are given.

IT 188303-33-5

RL: PRP (Properties)  
(crystal structure of)

RN 188303-33-5 HCAPLUS

CN 1,3,5-Cyclohexanetricarboxylic acid, (1 $\alpha$ ,3 $\alpha$ ,5 $\alpha$ )-, compd. with cyclohexane and 4,4''-dihydroxy-5'-[4-hydroxy-3-[[6-methyl-2-pyridinyl)amino]carbonyl]-5-propylphenyl]-N,N'-bis(6-methyl-2-pyridinyl)-5,5''-dipropyl[1,1':3',1''-terphenyl]-3,3''-dicarboxamide (2:1:2) (9CI)  
(CA INDEX NAME)

CM 1

CRN 110-82-7  
CMF C6 H12

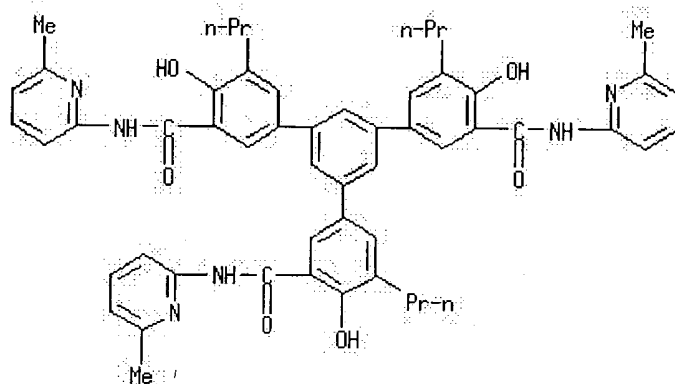


CM 2

CRN 157460-61-2  
CMF C54 H54 N6 O6 . C9 H12 O6

CM 3

CRN 157460-60-1  
CMF C54 H54 N6 O6

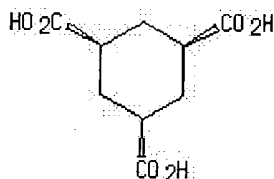


CM 4

CRN 16526-68-4

CMF C9 H12 O6

Relative stereochemistry.



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 108 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

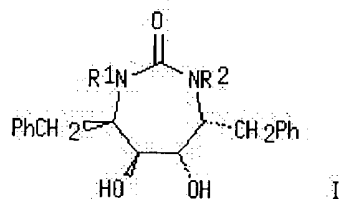
Full Text  
References

ACCESSION NUMBER: 1996:751515 HCAPLUS  
DOCUMENT NUMBER: 126:18896  
TITLE: preparation of cyclic urea derivatives as HIV protease inhibitors  
INVENTOR(S): Jadhav, Prabhakar Kondaji  
PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA  
SOURCE: PCT Int. Appl., 195 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9629329	A1	19960926	WO 1996-US3426	19960313
W: AU, BR, CA, CN, CZ, EE, HU, JP, KR, LT, LV, MX, NO, NZ, PL, RO, SG, SI, SK, UA, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5683999	A	19971104	US 1996-613554	19960311
AU 9653100	A1	19961008	AU 1996-53100	19960313
EP 815108	A1	19980107	EP 1996-909680	19960313
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
PRIORITY APPLN. INFO.:			US 1995-406240	A 19950317
			US 1996-613554	A 19960311
			WO 1996-US3426	W 19960313

OTHER SOURCE(S):  
GI

MARPAT 126:18896



AB The title compds. [I; R1 = heterocyclymethyl; R2 = H, R1], useful as HIV protease inhibitors and thus effective in treating HIV infections, are prepd. and formulated. I are effective at 1.0-20 mg/kg-day p.o. Capsule, injectable, etc. formulations were given.

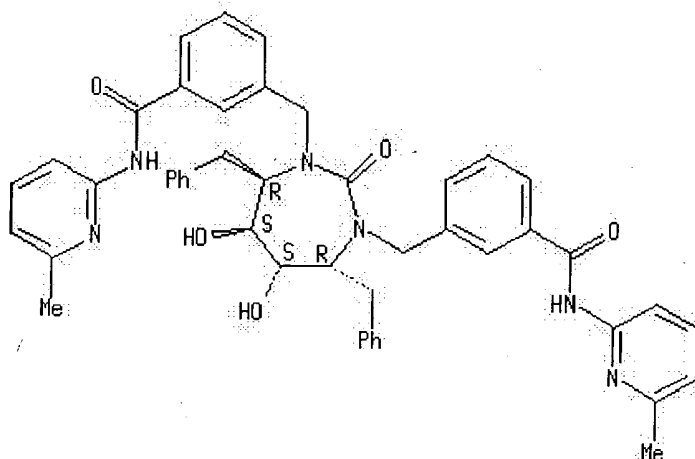
IT **183854-97-9P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of cyclic urea derivs. as HIV protease inhibitors)

RN **183854-97-9** HCAPLUS

CN Benzamide, 3,3'-[[[(4R,5S,6S,7R)-tetrahydro-5,6-dihydroxy-2-oxo-4,7-bis(phenylmethyl)-1H-1,3-diazepine-1,3(2H)-diyl]bis(methylene)]bis[N-(6-methyl-2-pyridinyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



L12 ANSWER 109 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full  
Text

ACCESSION NUMBER: 1996:618915- HCAPLUS  
DOCUMENT NUMBER: 126:8087  
TITLE: HIV Protease Inhibitory Bis-benzamide Cyclic Ureas: A Quantitative Structure-Activity Relationship Analysis  
AUTHOR(S): Wilkerson, Wendell W.; Akamike, Emeka; Cheatham, Walter W.; Hollis, Andrea Y.; Collins, R. Dale; DeLucca, Indawati; Lam, Patrick Y. S.; Ru, Yu  
CORPORATE SOURCE: Chemical and Physical Sciences, DuPont Merck Pharmaceutical Company, Wilmington, DE, 19880-0500, USA  
SOURCE: Journal of Medicinal Chemistry (1996), 39(21), 4299-4312

CODEN: JMCMAR; ISSN: 0022-2623  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB A series of N,N'-disubstituted cyclic urea 3-benzamides has been synthesized and evaluated for HIV protease inhibition and antiviral activity. Some of these benzamides have been shown to be potent inhibitors of HIV protease with  $K_i < 0.050$  nM and  $IC_{90} < 20$  nM for viral replication and, as such, may be useful in the treatment of AIDS. The synthesis and quant. structure-activity relationship for this benzamide series will be discussed.

IT **183854-97-9P**

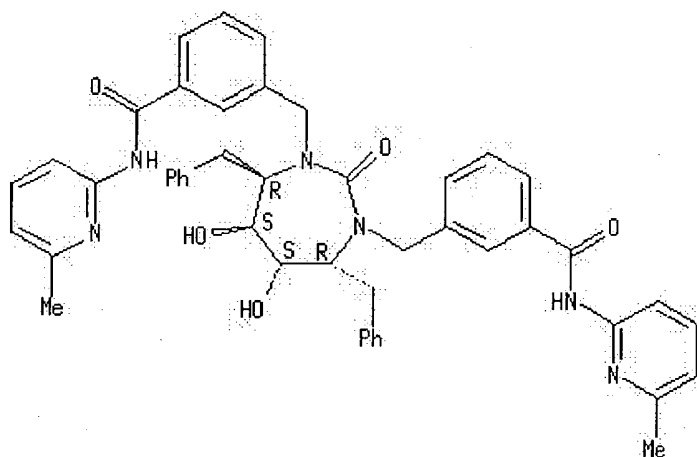
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(prepn. and QSAR of HIV protease inhibitory bis-benzamide cyclic ureas)

RN 183854-97-9 HCAPLUS

CN Benzamide, 3,3'-[[[(4R,5S,6S,7R)-tetrahydro-5,6-dihydroxy-2-oxo-4,7-bis(phenylmethyl)-1H-1,3-diazepine-1,3(2H)-diyl]bis(methylene)]bis[N-(6-methyl-2-pyridinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L12 ANSWER 110 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
 Citing References

ACCESSION NUMBER: 1996:373467 HCAPLUS  
 DOCUMENT NUMBER: 125:56131  
 TITLE: Seleno-organic compounds as immunostimulants: An approach to the structure-activity relationship  
 AUTHOR(S): Inglot, Anna D.; Mlochowski, Jacek; Zielinska-Jencylik, Janina; Piasecki, Egbert; Ledwon, Tomasz K.; Kloc, Krystian  
 CORPORATE SOURCE: Institute Immunology and Experimental Therapy, Polish Academy Sciences, Wroclaw, 53-114, Pol.  
 SOURCE: Archivum Immunologiae et Therapiae Experimentalis (1996), 44(1), 67-75  
 CODEN: AITEAT; ISSN: 0004-069X  
 PUBLISHER: Zaklad Narodowy imienia Ossolinskich  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Our studies on the seleno-org. compds. were focused at their activities as modest cytokine inducers in human peripheral blood leukocyte cultures.

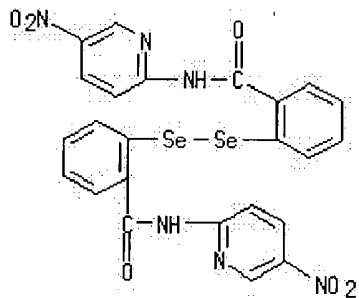
Our bioassays used in the screening methods were based on the quant. detns. of mainly two types of cytokines: interferons (IFNs) and tumor necrosis factors (TNFs). More recently we have found that several of the compds. have direct immunotropic actions in vitro and in vivo, in mice and in chickens. The paper summarizes the data related to the cytokine-inducing activity of 65 seleno-org. compds. divided into 4 groups according to their chem. structures. The ref. compd. was ebselen, the well known exptl. drug with various biol. activities. Approx. 50% of the compds. were found to be active in our bioassays. The selected compds. induced also IL-6 and GM-CSF. Their activities were clearly correlated with defined chem. structures as well as with the presence of selenium. We suggest that some of the compds., other than ebselen, are interesting as immunostimulants and potential antiviral agents and cytokine inducers active in humans.

IT 175612-99-4

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(antiviral, cytokine-inducing, and tumor cytotoxic activities of seleno-org. compds.)

RN 175612-99-4 HCAPLUS

CN Benzamide, 2,2'-diselenobis[N-(5-nitro-2-pyridinyl)- (9CI) (CA INDEX NAME)



L12 ANSWER 111 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN



ACCESSION NUMBER: 1996:166637 HCAPLUS  
DOCUMENT NUMBER: 124:278400  
TITLE: Immunotropic activities of benzisosenazolones and organic diselenides in mice  
AUTHOR(S): Blaszczyk, Barbara; Inglot, Anna D.; Kowalczyk-Bronisz, Stefania H.; Szymaniec, Stanislaw; Mlochowski, Jacek  
CORPORATE SOURCE: Institute Immunology and Experimental Therapy, Polish Academy Sciences, Wroclaw, 53-114, Pol.  
SOURCE: Archivum Immunologiae et Therapiae Experimentalis (1995), 43(5-6), 305-11  
CODEN: AITEAT; ISSN: 0004-069X  
PUBLISHER: Zaklad Narodowy imienia Ossolinski  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB We have investigated the immunotropic effects of 23 seleno-org. compds. (8 benzisosenazolones, 3 benzisosenazolone oxides and 12 org. diselenides). All of the compds. increased the rosette formation of sheep red blood cells (SRBC) with spleen cells obtained from thymectomized C53BL/6 mice and incubated in vitro in the presence of imuran. Furthermore, 16 of the compds. were also assayed in vitro in the hydrocortisone test performed with C57BL/6 mouse thymocytes. It was found

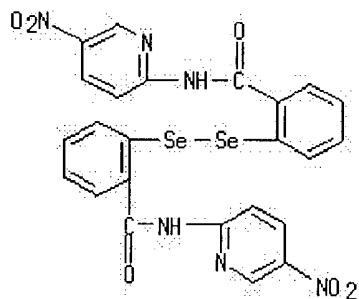
that all of them significantly protected the cells against hydrocortisone-induced cytotoxicity. Also in the Jerne's assay, performed in 129Ao/Boy mice pretreated in vivo with 3 selected compds. 5 days before immunization with SRBC, the stimulation of plaque forming cells (PFC) was obsd. Only one compd. (AE22, an analog of piroxicam) was found to be inhibitory in this assay. In contrast, in the graft vs. host (GvH) assay performed in hybrid mice the donor lymphoid cells obtained from C57BL/6 mice pretreated with 9 selected seleno-org. compds., suppressed the GvH reaction in the recipient hybrid mice. Thus, in all of the immunotropic assays except the GvH reaction in adult mice, the seleno-org. compds. were found to have immunostimulating activities.

IT 175612-99-4

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(seleno-org. compds. immunostimulant activity)

RN 175612-99-4 HCAPLUS

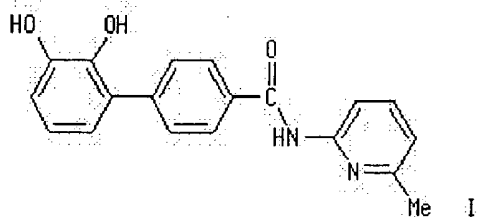
CN Benzamide, 2,2'-diselenobis[N-(5-nitro-2-pyridinyl)- (9CI) (CA INDEX NAME)



L12 ANSWER 112 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text Citing References

ACCESSION NUMBER: 1996:132012 HCAPLUS  
DOCUMENT NUMBER: 124:248771  
TITLE: Synthesis of a dicarboxylic acid receptor organized around a dioxomolybdenum core  
AUTHOR(S): Prevot-Halter, Isabelle; Smith, Thomas J.; Weiss, Jean  
CORPORATE SOURCE: Faculte Chimie, Univ. Louis Pasteur, Strasbourg, 67000, Fr.  
SOURCE: Tetrahedron Letters (1996), 37(8), 1201-4  
CODEN: TELEAY; ISSN: 0040-4039  
PUBLISHER: Elsevier  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI



AB Reaction of bis(acetylacetonato)dioxomolybdenum with 2 equiv 4-(2,3-dihydroxyphenyl)benzoyl 6-methyl-2-pyridylamide (I, H2L, prepn.

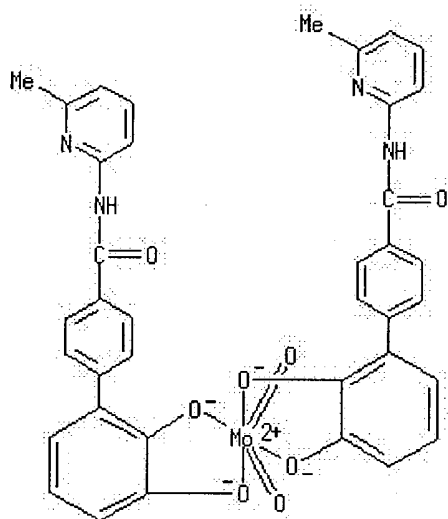
given) in EtOH in the presence of base afforded catecholate complexes  $K_2[MoO_2L_2]$  or  $(Bu_4N)_2[MoO_2L_2]$ . Only one pair of enantiomers of  $[MoO_2L_2]^{2-}$  out of three possible was obtained. The receptor characteristics of catecholate complexes  $K_2[MoO_2L_2]$  and  $(Bu_4N)_2[MoO_2L_2]$  for dicarboxylic acids were studied; binding consts. were detd. from UV-visible titrn. curves, and the 1:1 stoichiometry of the complex formation was confirmed by Job's method. Despite the relative rigidity of the  $[MoO_2L_2]^{2-}$  framework, only a slight preference for  $HO_2C(CH_2)_nCO_2H$  ( $n = 2, 3$ ) was noticeable. This work expands the concept of assembling receptors around metal templates to metal binding groups other than polyimine ligands.

## IT 174878-40-1P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(prepn. as receptor for dicarboxylic acids)

RN 174878-40-1 HCAPLUS

CN Molybdate(2-), bis[2',3'-dihydroxy-N-(6-methyl-2-pyridinyl)[1,1'-biphenyl]-4-carboxamidato(2-)-O2',O3']dioxo-, dipotassium, (OC-6-33)-(9CI) (CA INDEX NAME)

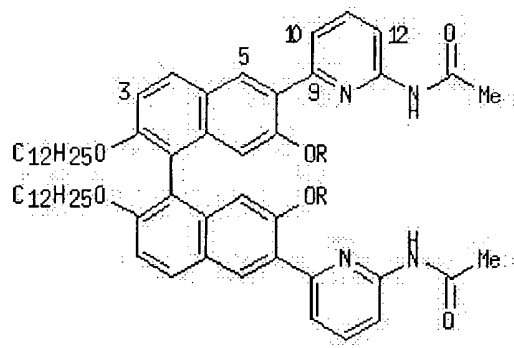


#.2 K<sup>+</sup>

L12 ANSWER 113 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text      Listing  
References

ACCESSION NUMBER: 1995:834662 HCAPLUS  
DOCUMENT NUMBER: 124:56600  
TITLE: Chiral 1,1'-binaphthyl molecular clefts for the complexation of excitatory amino-acid derivatives  
AUTHOR(S): Martinborough, Esther; Denti, Tiziana Modasini; Castro, Peter P.; Wyman, Tara B.; Knobler, Carolyn B.; Diederich, Francois  
CORPORATE SOURCE: Lab. Org. Chem., Eidgenoessichen Tech. Hochschule, Zurich, CH08092, Switz.  
SOURCE: Helvetica Chimica Acta (1995), 78(5), 1037-66  
CODEN: HCACAV; ISSN: 0018-019X  
PUBLISHER: Verlag Helvetica Chimica Acta  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 124:56600  
GI



AB The complexation of N-Cbz derivs. of Asp, Glu, and L-kainic acid was studied in CDCl<sub>3</sub> with various chiral receptors consisting of a 1,1'-binaphthyl spacer with (carboxamido)pyridine functionality at the 6,6'-positions in the major groove. Receptors of type A possess 2 N-(pyridin-2-yl)carboxamide H-bonding sites, whereas type B-receptors have 2 N-(pyridine-2,6-diyl)acetamide residues attached. Complexes of excitatory amino-acid derivs. and other, achiral  $\alpha,\omega$ -dicarboxylic acids with these receptors are primarily stabilized by 2 sets of C:O...H-N and O-H...N H-bonds. Optically active type-A receptors showed a preference for the large Glu deriv., whereas type-B receptors formed more stable complexes with the smaller Cbz-Asp. To improve the poor enantioselectivity addnl. functionality was introduced at the 7,7'-positions of the 1,1'-binaphthyl spacer, and the nature of the H-bonding sites in the 6,6'-positions was varied. ( $\pm$ )-I [R = CH<sub>2</sub>Ph, Me] formed the most stable complexes with dicarboxylic acids, and these receptors were synthesized in enantiomerically pure form. By <sup>1</sup>H NMR binding titrns., the complexation of (R)- and (S)-I with the excitatory amino-acid derivs. was studied in CDCl<sub>3</sub>, and assocn. consts. of  $K_a = 10^3 - 2 \times 10^5 \text{ L}\cdot\text{mmol}^{-1}$  were measured for the 1:1 host-guest complexes. Enantioselective binding was limited to I [R = CH<sub>2</sub>Ph], with the (R)-enantiomer complexing Cbz-Asp by 0.7 kcal·mol<sup>-1</sup> more tightly than the (S)-enantiomer. An unusual variety of interesting arom. interactions and secondary electrostatic interactions are responsible for the high binding affinity and the enantioselection obsd. with (R)- and (S)-I [R = CH<sub>2</sub>Ph]. To enhance the enantioselectivity by reducing the conformational flexibility of the 1,1'-binaphthyl spacer, an addnl. crown-ether binding site was attached to the 2,2'-positions in the minor groove of type-B receptors. The binding affinity and the enantioselectivity were not altered upon complexation of Hg(CN)<sub>2</sub> at the crown-ether binding site, demonstrating lack of cooperativity between the minor- and major-groove recognition sites.

IT **147650-11-1P**

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(assocn. consts. and prepn. of chiral 1,1'-binaphthyl mol. clefts with  $\alpha,\omega$ -dicarboxylic acid recognition sites)

RN 147650-11-1 HCAPLUS

CN Butanedioic acid, 2,2-diphenyl-, compd. with N,N'-bis(6-methyl-2-pyridinyl)-2,2'-bis(phenylmethoxy)[1,1'-binaphthalene]-6,6'-dicarboxamide (1:1) (9CI) (CA INDEX NAME)

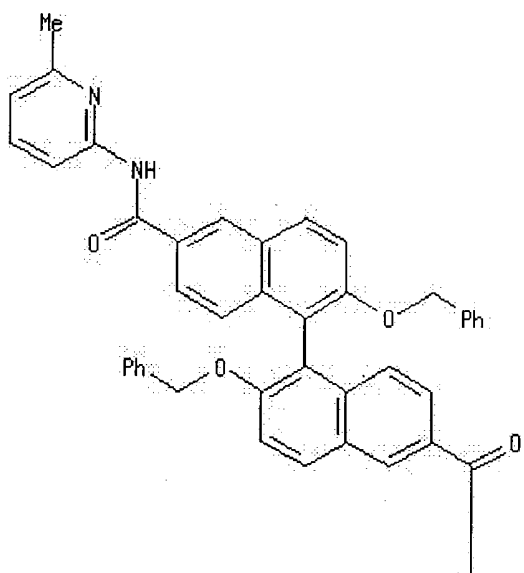
CM 1

CRN 147650-10-0

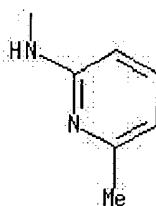
CMF C48 H38 N4 O4



PAGE 1-A

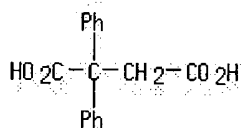


PAGE 2-A



CM 2

CRN 10186-26-2  
CMF C16 H14 O4



L12 ANSWER 114 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text	Citing References
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ACCESSION NUMBER: 1995:714291 HCAPLUS  
DOCUMENT NUMBER: 123:186781  
TITLE: Self-Assembling, Chromogenic Receptors for the Recognition of Dicarboxylic Acids  
AUTHOR(S): Goodman, M. Scott; Hamilton, Andrew D.; Weiss, Jean  
CORPORATE SOURCE: Department of Chemistry, University of Pittsburgh, Pittsburgh, PA, 15260, USA  
SOURCE: Journal of the American Chemical Society (1995), 117(32), 8447-55  
CODEN: JACSAT; ISSN: 0002-7863  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal

h eb c g cg b cg

eb

LANGUAGE: English

AB The synthesis of 2 ligands (2,9-disubstituted phenanthrolines) bearing one or two acylaminopyridine binding sites (1 and 2, resp.) is described. Each ligand can assemble on a Cu(I) template, forming two different receptors for dicarboxylic acids, Cu(1)2+BF4- and Cu(2)2+BF4-. These orange Cu(I) complexes bind ( $K_a > 10^4 \text{ M}^{-1}$ ) to a variety of dicarboxylic acids in CHCl<sub>3</sub>, with a slight preference for the C5-dicarboxylic acids, glutaric and N-CBz-glutamic acids, over shorter and longer substrates. Complexation is analyzed both by NMR chem. shift changes and UV-visible absorption changes. The data indicate formation of 1:1 complexes for Cu(1)2+BF4- and 2:1 complexes for Cu(2)2+BF4-, with the dicarboxylic acid substrate H bonding simultaneously to an acylaminopyridine binding site on each ligand. For Cu(2)2+BF4-, the complexation event results in large shifts in the visible absorption bands and a color change from orange to red. The change in the visible absorbance, and therefore the chromogenicity, is substrate dependent. The chromogenic effect is explained as being the result of a conformational change in the receptors resulting from H bond formation with the substrate.

IT **160473-37-0P**

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(prepn. and chromogenic reaction with dicarboxylic acids)

RN 160473-37-0 HCAPLUS

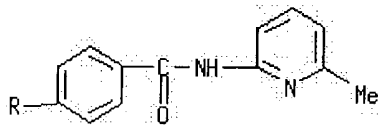
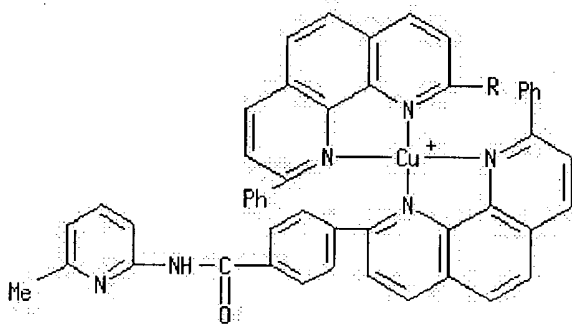
CN Copper(1+), bis[N-(6-methyl-2-pyridinyl)-4-(9-phenyl-1,10-phenanthrolin-2-yl)benzamide-N4,N4']-, (T-4)-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 160473-36-9

CMF C62 H44 Cu N8 O2

CCI CCS



CM 2

CRN 14874-70-5

CMF B F4

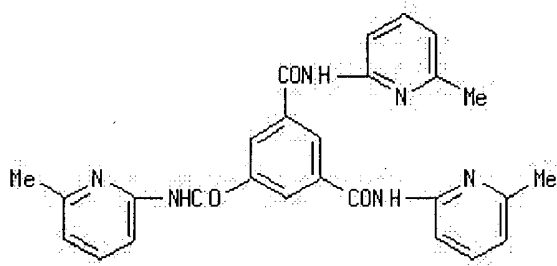
CCI CCS



L12 ANSWER 115 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text	Citing References
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ACCESSION NUMBER: 1995:629812 HCAPLUS  
 DOCUMENT NUMBER: 123:32615  
 TITLE: Binding of Heptanedioic Acid to a Threefold Pyridine Arylamide Receptor. Enhancement of the Stability of Supramolecular Solution Structures by Multiple Binding Sites  
 AUTHOR(S): Koenig, Burkhard; Moeller, Oliver; Bubenitschek, Peter; Jones, Peter G.  
 CORPORATE SOURCE: Institut fuer Organische Chemie der Technischen, Universitaet Braunschweig, Braunschweig, D-38106, Germany  
 SOURCE: Journal of Organic Chemistry (1995), 60(13), 4291-3  
 CODEN: JOCEAH; ISSN: 0022-3263  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



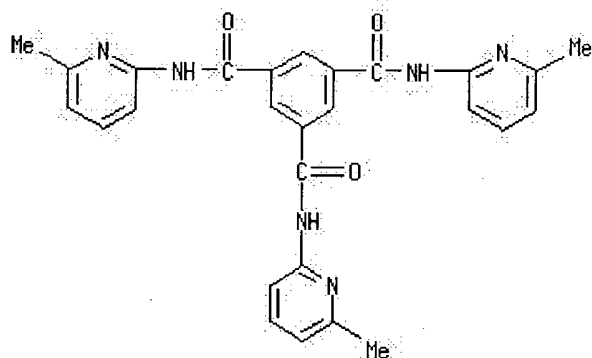
AB Defined supramol. soln. structures with 1:1 stoichiometry were obtained from triamide I and heptanedioic acid (II) in chloroform, as shown by Jobs plot anal. of their <sup>1</sup>H NMR spectra. A macroscopic binding const. for I and II was detd. as  $\approx 2.5 \cdot 10^5 \text{ L M}^{-1}$ . The incorporation of an addnl. binding moiety into I, compared to the previously reported diamide analog, results in a significant increase in the stability of the assembly arising from less restricted degrees of freedom. I was obtained from benzene-1,3,5-tricarbonyl chloride and 6-methyl-2-pyridinamine. The x-ray crystal structure anal. of I is reported.

IT **164174-81-6P**

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (prepn. and binding with heptanedioic acid)

RN 164174-81-6 HCAPLUS

CN 1,3,5-Benzenetricarboxamide, N,N',N''-tris(6-methyl-2-pyridinyl)- (9CI)  
 (CA INDEX NAME)



L12 ANSWER 116 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full  
Text

References

ACCESSION NUMBER: 1995:517657 HCAPLUS  
DOCUMENT NUMBER: 123:32595  
TITLE: Molecular clefts derived from 9,9'-spirobi-9H-fluorene for enantioselective complexation of pyranosides and dicarboxylic acids  
AUTHOR(S): Cuntze, Jens; Owens, Linda; Alcazar, Victoria; Seiler, Paul; Diederich, Francois  
CORPORATE SOURCE: Lab. Org. Chem., Eidgenoessischen Tech. Hochschule, Zurich, CH-8092, Switz.  
SOURCE: Helvetica Chimica Acta (1995), 78(2), 367-90  
CODEN: HCACAV; ISSN: 0018-019X  
PUBLISHER: Verlag Helvetica Chimica Acta  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The mol. clefts (R)- and (S)-I were prep'd. via the bis(N-succinimidyl esters) of (R)- and (S)-9,9'-spirobi-9H-fluorene-2,2'-dicarboxylic acid. A spirobifluorene cleft with two different H-bonding sites (II) was also prep'd. Binding studies with (R)- and (S)-I and optically active dicarboxylic acids in CDCl<sub>3</sub> exhibited differences in free energy of the diastereoisomeric complexes formed;  $\Delta(\Delta G^0)$  was 0.5-1.6 kcal mol<sup>-1</sup> (300 K). Similar enantioselectivities were obs'd. with the spirobifluorene clefts (R)- and (S)-III. The thermodyn. quantities  $\Delta H^0$  and  $\Delta S^0$  for the recognition processes with (R)- and (S)-III were det'd. by variable-temp. <sup>1</sup>H-NMR titrns. and compared to those with (R)- and (S)-IV, contg. a conformationally more flexible 1,1'-binaphthyl moiety. All assocn. processes showed high enthalpic driving forces which are partially compensated for by unfavorable changes in entropy. Pyranosides bind to the optically active clefts III and I in CDCl<sub>3</sub> with  $-\Delta G^0 = 3.0-4.3$  kcal mol<sup>-1</sup>. Diastereoisomeric selectivities up to 1.2 kcal mol<sup>-1</sup> and enantioselectivities up to 0.4 kcal mol<sup>-1</sup> were obs'd. Cleft II and N-(5,7-dimethyl-1,8-naphthyridin-2-yl)acetamide complexed pyranosides, e.g., V, as effectively as I, indicating that only one CONH(naphthyl) site in I assoc's. strongly with the sugar derivs. Based on the x-ray crystal structure of I, a computer model for the complex between (S)-I and pyranoside V was constructed. Mol.-dynamics simulations showed that differential geometric constraints

are at the origin of the high enantioselectivity in the complexation of dicarboxylic acid (S)-VI by (R)- and (S)-III and (R)- and (S)-I.

IT 143957-67-9p

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(mol. clefts derived from spirobifluorene for enantioselective complexation of pyranosides and dicarboxylic acids)

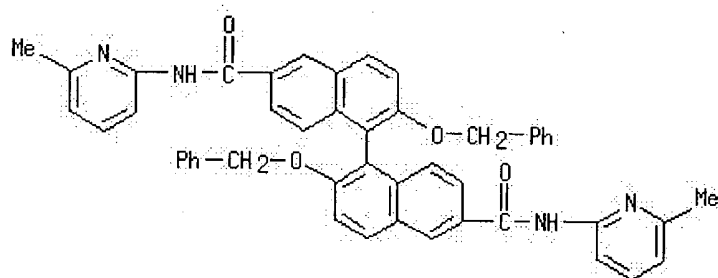
RN 143957-67-9 HCAPLUS

CN L-Glutamic acid, N-[(phenylmethoxy)carbonyl]-, compd. with  
(R)-N,N'-bis(6-methyl-2-pyridinyl)-2,2'-bis(phenylmethoxy)[1,1'-binaphthalene]-6,6'-dicarboxamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 143957-66-8

CMF C48 H38 N4 O4

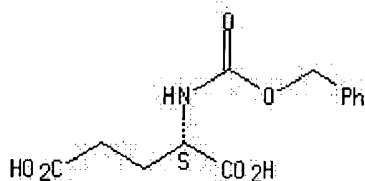


CM 2

CRN 1155-62-0

CMF C13 H15 N O6

Absolute stereochemistry.



L12 ANSWER 117 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text References

ACCESSION NUMBER: 1995:336118 HCAPLUS  
DOCUMENT NUMBER: 122:285391  
TITLE: Synthetic hydrogen bonding receptors as models of transacylase enzymes  
AUTHOR(S): Tecilla, Paolo; Jubian, Vrej; Hamilton, Andrew D.  
CORPORATE SOURCE: Dep. of Chemistry, Univ. of Pittsburgh, Pittsburgh, PA, 15260, USA  
SOURCE: Tetrahedron (1995), 51(2), 435-48  
CODEN: TETRAB; ISSN: 0040-4020  
PUBLISHER: Elsevier  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB A family of synthetic receptors has been prepd. contg. a barbiturate binding site and an appended thiol nucleophile. These are shown to cause large accelerations in the thiolysis reactions of barbiturate active ester

derivs. The size of the acceleration is shown to depend critically on the length and flexibility of the spacer that links the thiol to the receptor.

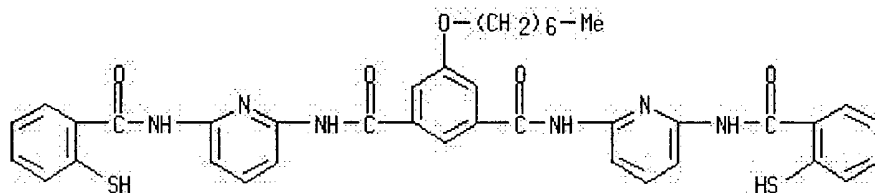
IT 131747-09-6P

RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);  
USES (Uses)

(enzyme model; synthetic hydrogen bonding receptors as models of  
transacylase enzymes)

RN 131747-09-6 HCAPLUS

CN 1,3-Benzenedicarboxamide, 5-(heptyloxy)-N,N'-bis[6-[(2-  
mercaptobenzoyl)amino]-2-pyridinyl]- (9CI) (CA INDEX NAME)



L12 ANSWER 118 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full  
Text

Chiral  
References

ACCESSION NUMBER: 1995:263058 HCAPLUS

DOCUMENT NUMBER: 122:105181

TITLE: A self-assembling receptor for dicarboxylic acids

AUTHOR(S): Goodman, M. Scott; Weiss, Jean; Hamilton, Andrew D.

CORPORATE SOURCE: Dep. of Chem., Univ. of Pittsburgh, Pittsburgh, PA,  
15260, USA

SOURCE: Tetrahedron Letters (1994), 35(48), 8943-6  
CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB In this paper we describe a simple binding subunit that self-assembles in the presence of metal ions to form a receptor for dicarboxylic acids. The resultant binding site is chiral and strong complexation to dicarboxylic acids in CDCl<sub>3</sub> can be detected by both NMR and UV-vis spectroscopies.

IT 160473-38-1

RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation,  
nonpreparative)

(self-assembling receptor for dicarboxylic acids)

RN 160473-38-1 HCAPLUS

CN Copper(1+), bis[N-(6-methyl-2-pyridinyl)-4-(9-phenyl-1,10-phenanthroline-2-  
yl)benzamide-N4,N4']-, (T-4)-, tetrafluoroborate(1-), pentanedioate (1:1)  
(9CI) (CA INDEX NAME)

CM 1

CRN 110-94-1

CMF C5 H8 O4

HO<sub>2</sub>C-(CH<sub>2</sub>)<sub>3</sub>-CO<sub>2</sub>H

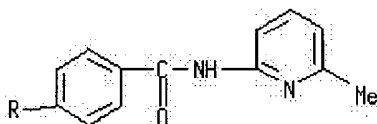
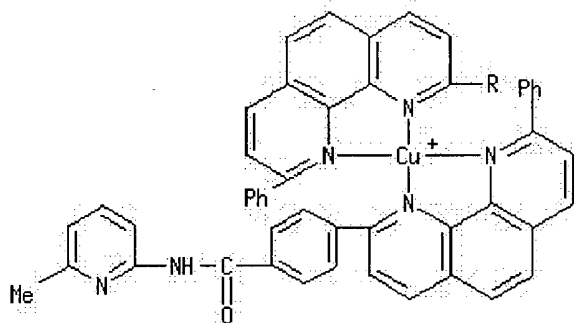
CM 2

CRN 160473-37-0

CMF C62 H44 Cu N8 O2 . B F4

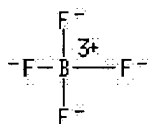
CM 3

CRN 160473-36-9  
 CMF C62 H44 Cu N8 O2  
 CCI CCS



CM 4

CRN 14874-70-5  
 CMF B F4  
 CCI CCS



L12 ANSWER 119 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
 References

ACCESSION NUMBER: 1995:71053 HCAPLUS  
 DOCUMENT NUMBER: 122:105008  
 TITLE: Intra- and intermolecular hydrogen bonding control of supramolecular structure  
 AUTHOR(S): Hamilton, Andrew D.; Hamuro, Yoshitomo; Yang, Ji; Geib, Steven J.; Fan, Erkang  
 CORPORATE SOURCE: Department Chemistry, University Pittsburgh, Pittsburgh, PA, 15260, USA  
 SOURCE: NATO ASI Series, Series C: Mathematical and Physical Sciences (1994), 426 (COMPUTATIONAL APPROACHES IN SUPRAMOLECULAR CHEMISTRY), 101-8  
 CODEN: NSCSDW; ISSN: 0258-2023  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Hydrogen bonding is used to control supramol. structure in two distinct ways. The first involves intramol. hydrogen bonds to stabilize linear and helical conformations in synthetic oligomers. The second uses intermol.

hydrogen bonding to direct the self-assembly of several interacting subunits.

IT **149540-94-3P**

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (prepn. and hydrogen bonding of)

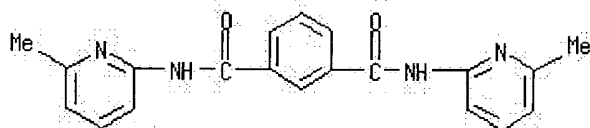
RN **149540-94-3** HCAPLUS

CN [1,1'-Biphenyl]-3,3'-dicarboxylic acid, compd. with N,N'-bis(6-methyl-2-pyridinyl)-1,3-benzenedicarboxamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN **130760-57-5**

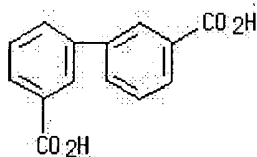
CMF C20 H18 N4 O2



CM 2

CRN **612-87-3**

CMF C14 H10 O4



L12 ANSWER 120 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1994:655657 HCAPLUS

DOCUMENT NUMBER: 121:255657

TITLE: Preparation of bis(2-pyridylaminocarbonyl)benzene derivatives as fluorescent probes

INVENTOR(S): Aoki, Izu

o; Shinkai, Seiji

PATENT ASSIGNEE(S): Shingijutsu Kaihatsu Jigyodan, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06192224	A2	19940712	JP 1992-280674	19920926
JP 3027660	B2	20000404		
PRIORITY APPLN. INFO.:			JP 1992-280674	19920926
OTHER SOURCE(S):	MARPAT	121:255657		
GI				

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*



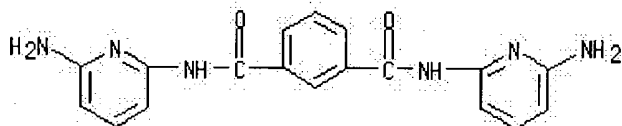
AB Fluorescent compds. having fluorescent groups in a mol. skeleton to which a pair of 2-pyridylaminocarbonyl groups are bonded at a distance equiv. to 2-5 C atoms, preferably represented by a general formula (I; at least one of X1 - X3 = a group of atoms bonded to a fluorescent mol. and the others without being bonded to a fluorescent mol. = atom or a group of atoms not damaging the fluorescence property of the mol.), are prepd. I provide a suitable space between the 2-pyridylaminocarbonyl groups for capturing mols. having an ureido NHCONH or CO<sub>2</sub>H group, while the 2 NH groups and the N atoms of the 2 pyridine groups in I also serve as a site for capturing said mols. via hydrogen bonding, and the capturing of said mols. brings drastic change in the fluorescent property of the fluorescent group. By using these fluorescent compds. I as fluorescent probes, said mols. having an ureido or CO<sub>2</sub>H groups such as barbitol- or hydantoin-related drugs (sedatives, tranquilizers, and anticonvulsants) are conveniently analyzed in high sensitivity and speed. Thus, 2,6-diaminopyridine was acylated by isophthaloyl dichloride in THF contg. Et<sub>3</sub>N to give 95% diamide (II; R = H) which was similarly acylated by 4-(1-pyrenyl)butyryl chloride (prepn. given) to give 71% II (R = Q4) (III). A soln. contg. 2.0 .times. 10<sup>-5</sup> M barbitol and 2 .times. 10<sup>-6</sup> M III in CHCl<sub>3</sub>-cyclohexane showed fluorescence intensity from pyrene monomer (Im) of 119 at 380 nm and that of pyrene excimer (Iex) of 72 at .apprx.480 nm and Im/ex ratio of 2.29 vs. Im = 42, Iex = 72, and Im/Iex ratio = 0.58 in the absence of barbitol.

IT 112817-57-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(intermediate for prepn. of bis(pyridylaminocarbonyl)benzene derivs. as fluorescent probes for fluorescence anal.)

RN 112817-57-9 HCAPLUS

CN 1,3-Benzenedicarboxamide, N,N'-bis(6-amino-2-pyridinyl)- (9CI) (CA INDEX NAME)



L12 ANSWER 121 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text Citing References

ACCESSION NUMBER: 1994:557048 HCAPLUS  
DOCUMENT NUMBER: 121:157048  
TITLE: Molecular recognition of cis-1,3,5-cyclohexanetricarboxylic acid  
AUTHOR(S): Ballester, Pablo; Costa, Antoni; Deya, Pere M.; Gonzalez, Jose F.; Rotger, M. Carmen; Deslongchamps, Ghislain  
CORPORATE SOURCE: Dep. de Quim., Univ. de les Illes Balears, Palma de Mallorca, 07071, Spain  
SOURCE: Tetrahedron Letters (1994), 35(22), 3813-16  
CODEN: TELEAY; ISSN: 0040-4039  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB The design and synthesis of a new receptor, bearing amidopyridine units, designed to bind tricarboxylic acids in org. solvents is described. The properties of the complex formed between the new receptor and cis-1,3,5-cyclohexanetricarboxylic acid are studied.  
IT 157460-61-2P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(prepn. and assocn. const. of)

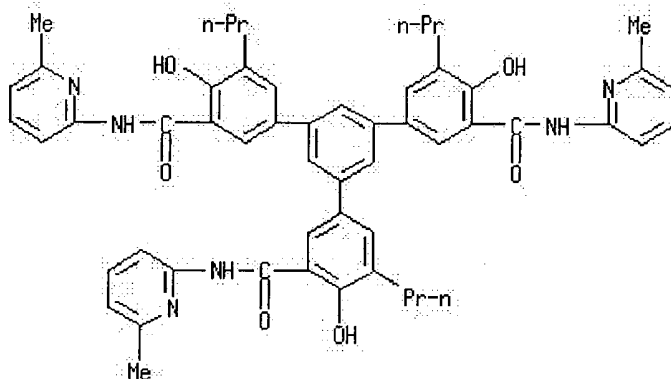
RN 157460-61-2 HCAPLUS

CN 1,3,5-Cyclohexanetricarboxylic acid, (1 $\alpha$ ,3 $\alpha$ ,5 $\alpha$ )-, compd.  
with 4,4''-dihydroxy-5'-[4-hydroxy-3-[[6-methyl-2-  
pyridinyl)amino]carbonyl]-5-propylphenyl]-N,N'-bis(6-methyl-2-pyridinyl)-  
5,5''-dipropyl[1,1':3',1''-terphenyl]-3,3''-dicarboxamide (1:1) (9CI) (CA  
INDEX NAME)

CM 1

CRN 157460-60-1

CMF C54 H54 N6 O6

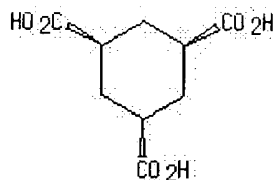


CM 2

CRN 16526-68-4

CMF C9 H12 O6

Relative stereochemistry.



L12 ANSWER 122 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

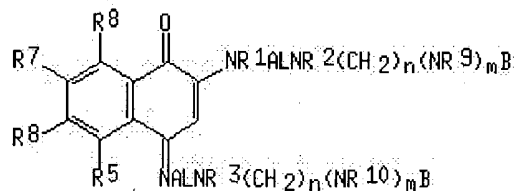
Full  
Text

Large  
References

ACCESSION NUMBER: 1994:508263 HCAPLUS  
DOCUMENT NUMBER: 121:108263  
TITLE: Preparation of N,N'-bis(sulfonamido)-2-amino-4-  
iminonaphthalen-1-ones and N,N'-bis(amido)-2-amino-4-  
iminonaphthalen-1-pnes  
INVENTOR(S): Defauw, Jean M.  
PATENT ASSIGNEE(S): Sphinx Pharmaceuticals Corp., USA  
SOURCE: U.S., 14 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5292737	A	19940308	US 1992-965354	19921023
PRIORITY APPLN. INFO.:			US 1992-965354	19921023
OTHER SOURCE(S):	MARPAT	121:108263		

GI



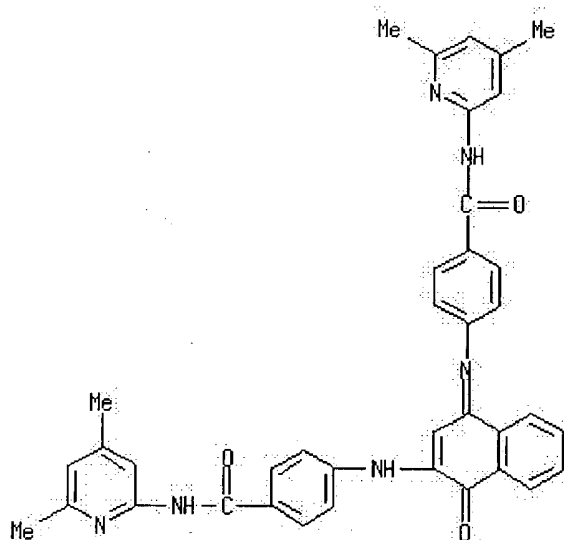
AB Title compds. I (A = Ph, naphthyl; L = O<sub>2</sub>S, CO; R<sub>1</sub>-3, R<sub>9</sub>, R<sub>10</sub> = H, alkyl, aryl, alkylaryl, arylalkyl, cycloalkyl; R<sub>4</sub>-8 = H, alkyl, aryl, alkylaryl, arylalkyl, halo, O<sub>2</sub>N, (acyl) amino, HO, fused arom. ring, etc. B = H, aryl, arylalkyl, alkylaryl, C<sub>3</sub>-8 cycloalkyl, C<sub>2</sub>-20 alkenyl, C<sub>2</sub>-20 alkynyl acyl or substituted thereof, (substituted) heterocyclyl; m = 0,1; n = 0-6) or a salt thereof, inhibitors of protein kinase C and useful in treatment of inflammatory, cardiovascular and/or neoplastic diseases, are prepd. To K 1,2-naphthoquinone-4-sulfonate in DMSO was added sulfamethoxazole to give I [R<sub>1</sub>-8 = H, A = Ph, L = SO<sub>2</sub>, m = n = 0, B = 3-(5-methylisoxazolyl)] (II). The IC<sub>50</sub> of II in human tumor cell growth inhibition was 13.30 μM. I were evaluated for biol. activity as described above.

IT **156595-38-9P**

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of as drug)

RN 156595-38-9 HCAPLUS

CN Benzamide, N-(4,6-dimethyl-2-pyridinyl)-4-[[3-[[4-[[4,6-dimethyl-2-pyridinyl)amino]carbonyl]phenyl]amino]-4-oxo-1(4H)-naphthalenylidene]amino]- (9CI) (CA INDEX NAME)



L12 ANSWER 123 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full  
Text

Citing  
References

ACCESSION NUMBER: 1994:503388 HCAPLUS

DOCUMENT NUMBER: 121:103388  
 TITLE: Molecular Recognition in Membrane Mimics: A Fluorescence Probe  
 AUTHOR(S): Moteshare, Kianoush; Myles, David C.  
 CORPORATE SOURCE: Department of Chemistry and Biochemistry, University of California, Los Angeles, CA, 90024-1569, USA  
 SOURCE: Journal of the American Chemical Society (1994), 116(16), 7413-14  
 CODEN: JACSAT; ISSN: 0002-7863  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB A system is described for probing mol. recognition events in synthetic membranes using the change in the wavelength of fluorescence of receptors upon binding of ligand. The bis(2,6-diaminopyridine) amide of isophthalic acid was used as the receptor. Mixed monolayer contg. receptors functionalized with 10-carbon alkanethiol tethers and octanethiol were self-assembled on thin films of gold. A series of fluorescence expts. demonstrated that the presence of ligand by the receptor. The key evidence for interaction of the ligand and receptor was the reversible shift of the wavelength of fluorescence emission of the receptor in the presence and absence of the ligand.

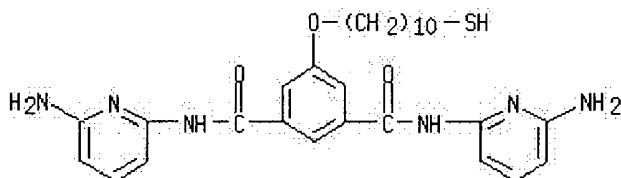
IT 156946-14-4P

RL: PREP (Preparation)

(prepn. of, for study of mol. recognition in membrane mimics)

RN 156946-14-4 HCAPLUS

CN 1,3-Benzenedicarboxamide, N,N'-bis(6-amino-2-pyridinyl)-5-[(10-mercaptodecyl)oxy]- (9CI) (CA INDEX NAME)



L12 ANSWER 124 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text ☐ Citing References ☐

ACCESSION NUMBER: 1994:430454 HCAPLUS  
 DOCUMENT NUMBER: 121:30454  
 TITLE: Enhanced Extraction of Phenobarbital from Serum with a Designed Artificial Receptor  
 AUTHOR(S): Valenta, Jane N.; Dixon, Robert P.; Hamilton, Andrew D.; Weber, Stephen G.  
 CORPORATE SOURCE: Department of Chemistry, University of Pittsburgh, Pittsburgh, PA, 15260, USA  
 SOURCE: Analytical Chemistry (1994), 66(14), 2397-403  
 CODEN: ANCHAM; ISSN: 0003-2700  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The primary goal of this work was to det. whether artificial receptors that function on the basis of mol. recognition have anal. capabilities. As an example of such a receptor, the authors chose one directed toward barbiturates. Chloroform enriched with this artificial receptor (1 mM) can ext. more than 90% of the phenobarbital from a 20  $\mu$ M phenobarbital soln. in human control serum using a vol. ratio (org./serum) as small as 0.5. In the absence of this receptor, the vol. ratio must be >10 to achieve similar extn. efficiencies. In addn. to vol. ratio, the role of

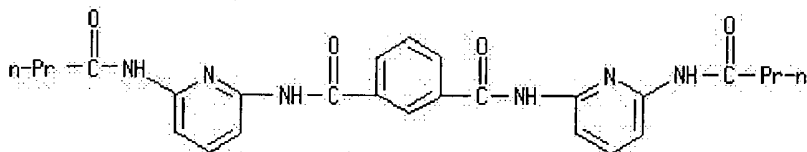
pH, receptor concn., and solvent type are discussed. The exptl. results are in good agreement with predictions based on chem. equil. Through the use of this and other similar receptors, the amt. of org. solvent used in extns. can be minimized.

IT 112817-60-4

RL: ANST (Analytical study)  
(barbiturate receptor, artificial)

RN 112817-60-4 HCAPLUS

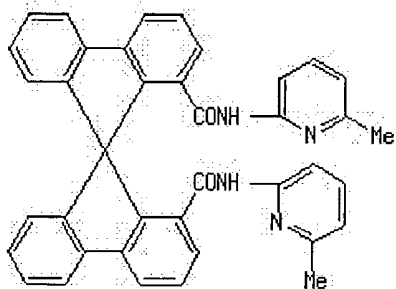
CN 1,3-Benzenedicarboxamide, N,N'-bis[6-[(1-oxobutyl)amino]-2-pyridinyl]-  
(9CI) (CA INDEX NAME)



L12 ANSWER 125 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text [Citing References](#)

ACCESSION NUMBER: 1993:559608 HCAPLUS  
DOCUMENT NUMBER: 119:159608  
TITLE: Enantioselective complexation of chiral dicarboxylic acids in 9,9'-spirobifluorene clefts  
AUTHOR(S): Alcazar, Victoria; Diederich, Francois  
CORPORATE SOURCE: Lab. Org. Chem., ETH Zent., Zurich, CH-8092, Switz.  
SOURCE: Anales de Quimica (1993), 89(1), 89-92  
CODEN: ANQUEX; ISSN: 1130-2283  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI



I

AB The 9,9'-spirobifluorene receptors (R)- and (S)-I complex chiral dicarboxylic acids enantioselectively in chloroform via hydrogen bonding. A very large difference in stability,  $\Delta(\Delta G^\circ) = 1.8$  kcal mol<sup>-1</sup> was measured for the diastereomeric complexes formed by (R)- and (S)-I with a chiral 2,2'-dicarboxy-9,9'-spirobifluorene. In contrast, 1,1'-binaphthyl receptors with similar functionality in the major groove do not show significant enantioselectivity in the complexation of chiral dicarboxylic acids.

IT 143957-67-9

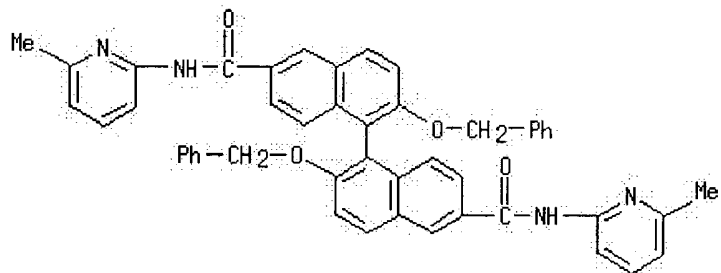
RL: PROC (Process)  
(formation const. and free energy of formation of)

RN 143957-67-9 HCAPLUS

CN L-Glutamic acid, N-[(phenylmethoxy)carbonyl]-, compd. with  
(R)-N,N'-bis(6-methyl-2-pyridinyl)-2,2'-bis(phenylmethoxy)[1,1'-  
binaphthalene]-6,6'-dicarboxamide (1:1) (9CI) (CA INDEX NAME)

CM 1

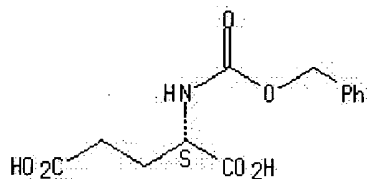
CRN 143957-66-8  
CMF C48 H38 N4 O4



CM 2

CRN 1155-62-0  
CMF C13 H15 N O6

Absolute stereochemistry.

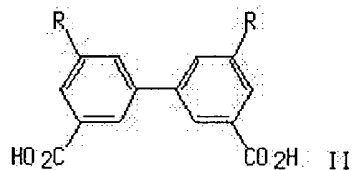
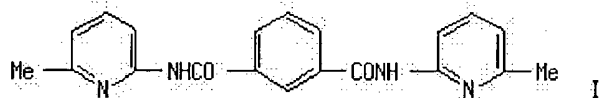


L12 ANSWER 126 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full  
Text

Chem  
References

ACCESSION NUMBER: 1993:516712 HCAPLUS  
DOCUMENT NUMBER: 119:116712  
TITLE: Hydrogen-bonding control of molecular self-assembly:  
formation of a 2 + 2 complex in solution and in the  
solid state  
AUTHOR(S): Yang, Ji; Fan, Erkang; Geib, Steven J.; Hamilton,  
Andrew D.  
CORPORATE SOURCE: Mater. Res. Cent., Univ. Pittsburgh, Pittsburgh, PA,  
15260, USA  
SOURCE: Journal of the American Chemical Society (1993),  
115(12), 5314-15  
CODEN: JACSAT; ISSN: 0002-7863  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI



AB Two subunits of appropriate design, namely, I and II (R = H, CO<sub>2</sub>C<sub>10</sub>H<sub>21</sub>), can be induced to form, both in soln. and in the solid state, discrete 2 + 2 aggregates stabilized by a network of hydrogen bonds. The structure and stability of the aggregate were studied by x-ray crystallog., NMR, gel permeation chromatog. and vapor phase osmometry.

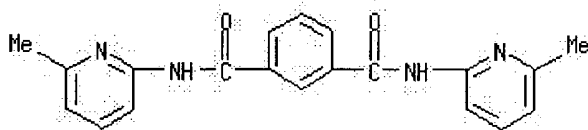
IT 130760-57-5

RL: PRP (Properties)

(hydrogen bonding of, with biphenyldicarboxylic acids in soln. and solid state)

RN 130760-57-5 HCAPLUS

CN 1,3-Benzenedicarboxamide, N,N'-bis(6-methyl-2-pyridinyl)- (9CI) (CA INDEX NAME)



L12 ANSWER 127 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

**Full Text** **References**

ACCESSION NUMBER: 1993:503501 HCAPLUS

DOCUMENT NUMBER: 119:103501

TITLE: Molecular design of a new fluorescent barbiturate receptor. Sensitive detection of barbiturates through solvent extraction

AUTHOR(S): Aoki, Izuo; Kawahara, Yohko; Sakaki, Toru; Harada, Takaaki; Shinkai, Seiji

CORPORATE SOURCE: ERATO, Res. Dev. Corp., Kurume, 830, Japan

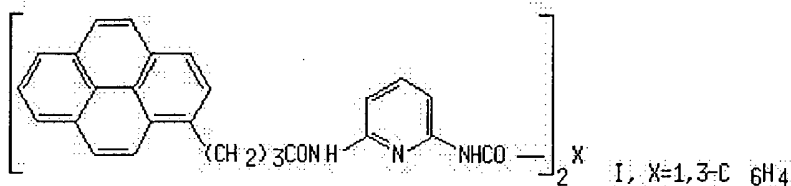
SOURCE: Bulletin of the Chemical Society of Japan (1993), 66(3), 927-33

CODEN: BCSJA8; ISSN: 0009-2673

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



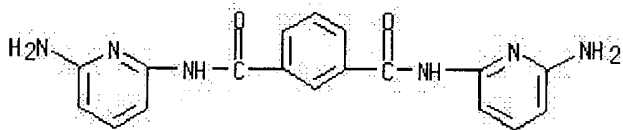
AB A fluorescent receptor, N,N'-bis[6-[4-(1-pyrenyl)butanamido]-2-pyridyl]isophthalamide (I), was synthesized to develop a sensitive host-guest-type sensory system for barbiturates. I aggregates in cyclohexane and the pyrene fluorescence in I almost disappeared because of aggregation-induced concn. quenching. The addn. of barbital to the cyclohexane soln. of I, which induced the deaggregation of I through complementary complexation with barbital, increased the fluorescence intensity at 378 nm by a factor of about 70-fold. The barbiturates in water could also be sensitively detected by I based on a liq. (water)-liq. (cyclohexane) extn. technique. In this system, I was essentially selective for barbiturates and no fluorescence response was obsd. for guests including a hydantoin skeleton. The analog of I, which has the N,N'-di-(2-pyridyl)terephthalamide skeleton, was also investigated as a fluorescent receptor for dicarboxylic acids.

IT 112817-57-9

RL: RCT (Reactant); RACT (Reactant or reagent)  
(acylation of, with pentanoyl chloride or pyrenylbutanoyl chloride)

RN 112817-57-9 HCAPLUS

CN 1,3-Benzenedicarboxamide, N,N'-bis(6-amino-2-pyridinyl)- (9CI) (CA INDEX NAME)



L12 ANSWER 128 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text	Linked References
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ACCESSION NUMBER: 1993:254302 HCAPLUS  
DOCUMENT NUMBER: 118:254302  
TITLE: Molecular recognition of phosphate esters: a balance of hydrogen bonding and proton transfer interactions  
AUTHOR(S): Hirst, Simon C.; Tecilla, Paolo; Geib, Steven J.; Fan, Erkang; Hamilton, Andrew D.  
CORPORATE SOURCE: Dep. Chem., Univ. Pittsburgh, Pittsburgh, PA, 15260, USA  
SOURCE: Israel Journal of Chemistry (1992), 32(1), 105-11  
CODEN: ISJCAT; ISSN: 0021-2148  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 118:254302

AB The interaction of different phosphate esters with H-bonding receptors was examd. using UV, NMR, and x-ray crystallog. Crit. for binding is a combination of an acidic proton and the potential for bidentate H-bonding either between charged or uncharged components. Phosphotriesters show no binding to the receptors. Phosphodiester bind to both bis(2,6-diacylaminopyridine) and mono-(2,6-diacylaminopyridine) receptors in chlorocarbon solvent via proton transfer to form the pyridinium phosphate ion pair and bidentate H-bonding between the anion and the cation. Titrn. expts. as well as Job's analyses show that for cyclic and acyclic bis(2,6-diacylaminopyridine) receptors 2:1 complexes are formed. Crystal structures demonstrate that in the solid state 2 different binding arrangements are present; either a direct bidentate interaction or intramol. H-bonding with self-assembly of an oligomeric structure. Phosphomonoesters bind to mono-(2,6-diacylaminopyridines) in a similar way to the diesters, via proton transfer and bidentate H-bonding. In this, as



in the diester case, only a single acid-base interaction is possible and proton transfer is preferred. However, in the interaction of phosphomonoesters with bis(2,6-diacylaminopyridine) derivs. 2 acid-base interactions are possible between the two pyridines and two POH groups, and little proton transfer is seen. Strong binding ( $K_a = 1.0 \cdot 10^5$  M<sup>-1</sup>) occurs with the formation of 4 H-bonds. There is a balance between the occurrence of proton transfer and the no. of H-bonds formed between receptor and substrate.

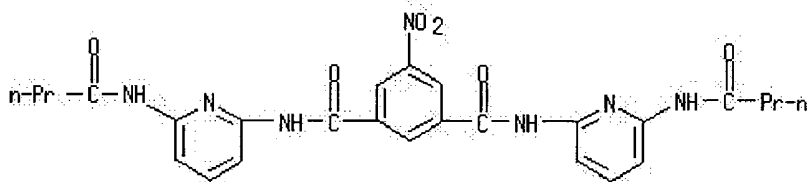
IT 147767-91-7RL: PRP (Properties)  
(UV and stoichiometry of)RN 147767-91-7 HCAPLUS

CN Phosphoric acid, diphenyl ester, compd. with 5-nitro-N,N'-bis[6-[(1-oxobutyl)amino]-2-pyridinyl]-1,3-benzenedicarboxamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 129648-69-7

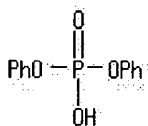
CMF C26 H27 N7 O6



CM 2

CRN 838-85-7

CMF C12 H11.04 P



L12 ANSWER 129 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text	Citing References
ACCESSION NUMBER:	1993:233397 HCAPLUS
DOCUMENT NUMBER:	118:233397
TITLE:	Self-organization to a helix via hydrogen-bridge bonds
AUTHOR(S):	Geib, Steven J.; Vicent, Cristina; Fan, Erkang; Hamilton, Andrew D.
CORPORATE SOURCE:	Mater. Res. Cent., Univ. Pittsburgh, Pittsburgh, PA, 15260, USA
SOURCE:	Angewandte Chemie (1993), 105(1), 85-5 (See also Angew. Chem., Int. Ed. Engl., 1993, 32(1), 80-1) CODEN: ANCEAD; ISSN: 0044-8249
DOCUMENT TYPE:	Journal
LANGUAGE:	German
GI	

ACCESSION NUMBER: 1993:233397 HCAPLUS

DOCUMENT NUMBER: 118:233397

TITLE: Self-organization to a helix via hydrogen-bridge bonds

AUTHOR(S): Geib, Steven J.; Vicent, Cristina; Fan, Erkang; Hamilton, Andrew D.

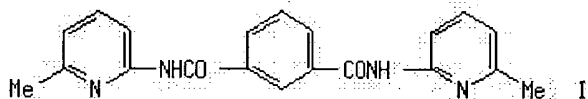
CORPORATE SOURCE: Mater. Res. Cent., Univ. Pittsburgh, Pittsburgh, PA, 15260, USA

SOURCE: Angewandte Chemie (1993), 105(1), 85-5 (See also Angew. Chem., Int. Ed. Engl., 1993, 32(1), 80-1) CODEN: ANCEAD; ISSN: 0044-8249

DOCUMENT TYPE: Journal

LANGUAGE: German

GI



AB X-ray analyses of H-bridged polymeric 1:1 complexes of diamide I with heptane- and pentanedioic acid indicated helical chains. The conformations of the partners differed in the two complexes. The I-heptanedioic acid complex retained its helical structure in soln.

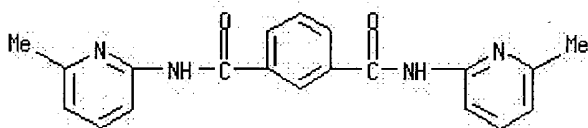
IT 130760-57-5

RL: PRP (Properties)

(hydrogen bonding of, with heptanedioic and pentanedioic acid, helical complex by)

RN 130760-57-5 HCAPLUS

CN 1,3-Benzenedicarboxamide, N,N'-bis(6-methyl-2-pyridinyl)- (9CI) (CA INDEX NAME)



L12 ANSWER 130 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text References

ACCESSION NUMBER: 1993:233206 HCAPLUS  
 DOCUMENT NUMBER: 118:233206  
 TITLE: Chiral molecular clefts for dicarboxylic acid complexation  
 AUTHOR(S): Alcazar, Victoria; Moran, Joaquin R.; Diederich, Francois  
 CORPORATE SOURCE: Dep. Chem. Biochem., Univ. California, Los Angeles, CA, 90024-1569, USA  
 SOURCE: Israel Journal of Chemistry (1992), 32(1), 69-77  
 CODEN: ISJCAT; ISSN: 0021-2148  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 118:233206  
 GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Three efficient cleft-type receptors, I-III are prepd. by attachment of 2 amidopyridine units as H-bonding centers to either the 2,2'-positions of 9,9'-spirobifluorene or the 6,6'-positions of 1,1'-binaphthyl spacers. The easy availability of these compds. in short synthetic routes make them attractive complexing agents for aliph. and arom. dicarboxylic acids which undergo bidentate binding in CHCl<sub>3</sub>. <sup>1</sup>H NMR binding studies show that substrates of different size can be accommodated into the clefts and form 1:1 complexes that are predominantly stabilized by multiple host-guest H-bonds. The flexible aliph. substrates diethylmalonic, 2,2-diphenylsuccinic, glutaric, and pimelic acid form complexes with assocn. consts. K<sub>a</sub> ranging from 10<sup>3</sup> to 10<sup>4</sup> L mol<sup>-1</sup>. Significantly more stable complexes (K<sub>a</sub> > 10<sup>5</sup> L mol<sup>-1</sup>) are obtained with the more rigid,

preorganized substrate 5-dodecyloxyisophthalic acid.

IT 147650-11-1

RL: PRP (Properties)  
(formation const. of)

RN 147650-11-1 HCAPLUS

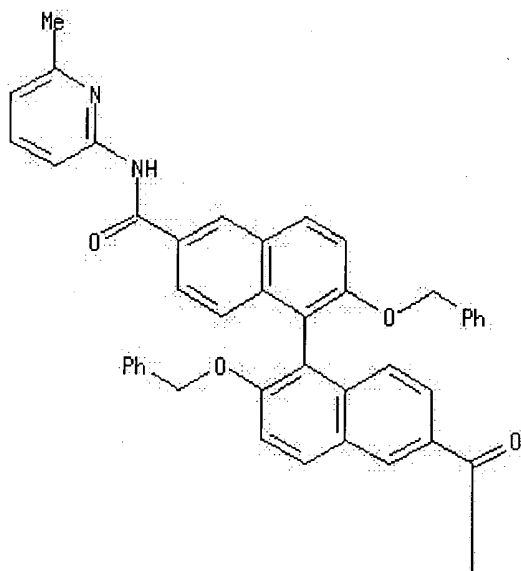
CN Butanedioic acid, 2,2-diphenyl-, compd. with N,N'-bis(6-methyl-2-pyridinyl)-2,2'-bis(phenylmethoxy)[1,1'-binaphthalene]-6,6'-dicarboxamide (1:1) (9CI) (CA INDEX NAME)

CM 1

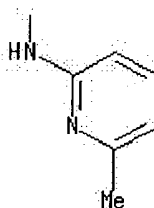
CRN 147650-10-0

CMF C48 H38 N4 O4

PAGE 1-A



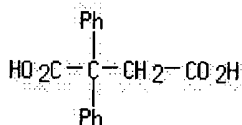
PAGE 2-A



CM 2

CRN 10186-26-2

CMF C16 H14 O4



L12 ANSWER 131 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

h eb c g cg b cg

eb

Full Text	Citing References
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ACCESSION NUMBER: 1993:208282 HCAPLUS  
 DOCUMENT NUMBER: 118:208282  
 TITLE: Molecular reception catalysis of the decarboxylation of N-carboxyimidazolidinone. A model for activation by distortion of N-carboxybiotin  
 AUTHOR(S): Kluger, Ronald; Tsao, Belinda  
 CORPORATE SOURCE: Dep. Chem., Univ. Toronto, Toronto, ON, M5S 1A1, Can.  
 SOURCE: Journal of the American Chemical Society (1993), 115(5), 2089-90  
 CODEN: JACSAT; ISSN: 0002-7863  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

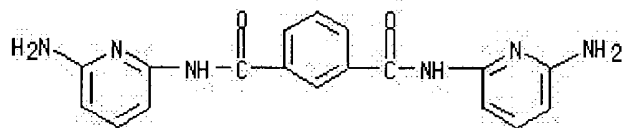
AB The decarboxylation of enzyme-bound N-carboxybiotin is induced by the binding of substrates and substrate analogs. The induction has been proposed to result from movement of the carboxyl group of N-carboxybiotin out of the plane of the imidazolidinone ring as a result of binding interactions with the protein. A macrocyclic host, (H), was designed to be complementary to imidazolidinone while its assocn. with N-carboxyimidazolidinone (I) will have steric interactions which should lead to distortion toward the transition state for decarboxylation. Kinetic anal. (25 °, tetrahydrofuran) shows that H is a specific and effective catalyst for the decarboxylation of I.

IT 112817-57-9

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with diacid dichloride)

RN 112817-57-9 HCAPLUS

CN 1,3-Benzenedicarboxamide, N,N'-bis(6-amino-2-pyridinyl)- (9CI) (CA INDEX NAME)



L12 ANSWER 132 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text	Citing References
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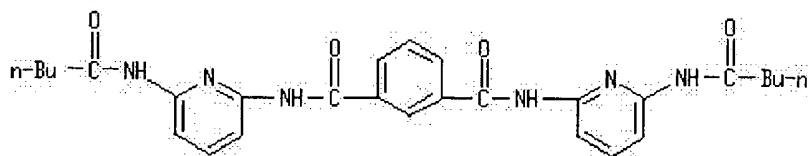
ACCESSION NUMBER: 1993:21861 HCAPLUS  
 DOCUMENT NUMBER: 118:21861  
 TITLE: Fluorescence reading-out of the molecular-recognition process  
 AUTHOR(S): Aoki, Izuo; Harada, Takaaki; Sakaki, Toru; Kawahara, Yohko; Shinkai, Seiji  
 CORPORATE SOURCE: Fukuoka Ind. Technol. Cent., Chikushino, 818, Japan  
 SOURCE: Journal of the Chemical Society, Chemical Communications (1992), (18), 1341-5  
 CODEN: JCCCAT; ISSN: 0022-4936  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The binding of guest mols. sensitively influences the fluorescent behavior of barbiturate-incorporated fluorescent pyrenes, making it possible to read out the mol.-recognition process by a fluorescence spectroscopic technique.

IT 144918-26-3

RL: PRP (Properties)  
 (NMR of, barbiturate effect on)

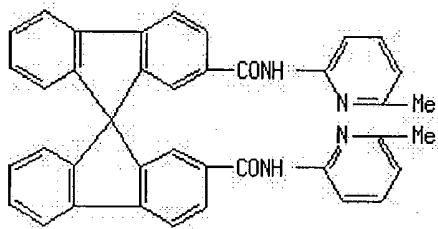
RN 144918-26-3 HCAPLUS  
 CN 1,3-Benzenedicarboxamide, N,N'-bis[6-[(1-oxopentyl)amino]-2-pyridinyl]-  
 (9CI) (CA INDEX NAME)



L12 ANSWER 133 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
 References

ACCESSION NUMBER: 1993:6571 HCAPLUS  
 DOCUMENT NUMBER: 118:6571  
 TITLE: Enantioselective complexation of chiral dicarboxylic acids in functionalized split 9,9'-spirobifluorenes  
 AUTHOR(S): Alcazar, Victoria; Diederich, Francois  
 CORPORATE SOURCE: Lab. Org. Chem., ETH-Zent., Zurich, CH-8092, Switz.  
 SOURCE: Angewandte Chemie (1992), 104(11), 1503-5 (See also Angew. Chem., Int. Ed. Engl., 1992, 31(11), 1521-3)  
 CODEN: ANCEAD; ISSN: 0044-8249  
 DOCUMENT TYPE: Journal  
 LANGUAGE: German  
 GI



AB Enantioselective complexation of chiral dicarboxylic acids, e.g., (S)-PhCH<sub>2</sub>OCONHCH(CO<sub>2</sub>H)CH<sub>2</sub>CO<sub>2</sub>H, with (R)- and (S)-I was examd. I showed higher potential than similar 1,1'-binaphthyls for differentiating enantiomers.

IT 143957-67-9

RL: PROC (Process)  
 (formation const. and free energy of formation)

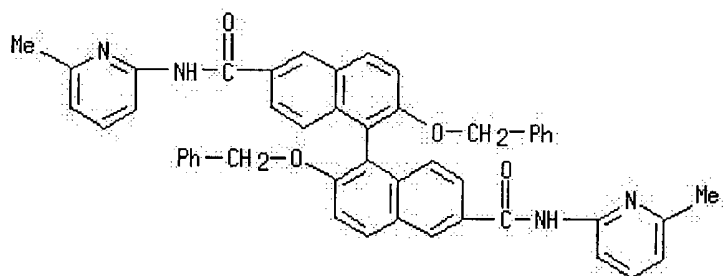
RN 143957-67-9 HCAPLUS

CN L-Glutamic acid, N-[(phenylmethoxy)carbonyl]-, compd. with (R)-N,N'-bis(6-methyl-2-pyridinyl)-2,2'-bis(phenylmethoxy)[1,1'-binaphthalene]-6,6'-dicarboxamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 143957-66-8

CMF C48 H38 N4 O4

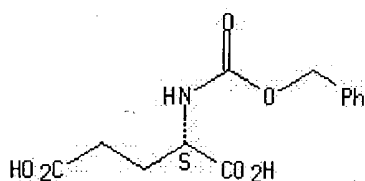


CM 2

CRN 1155-62-0

CMF C13 H15 N O6

Absolute stereochemistry.



L12 ANSWER 134 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text	Chemical References
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ACCESSION NUMBER: 1992:605053 HCAPLUS  
 DOCUMENT NUMBER: 117:205053  
 TITLE: Molecular recognition: porphyrin-containing receptors as analogs of barbiturate-induced cytochrome P450  
 AUTHOR(S): Slobodkin, Gregory; Fan, Erkang; Hamilton, Andrew D.  
 CORPORATE SOURCE: Dep. Chem., Univ. Pittsburgh, Pittsburgh, PA, 15260, USA  
 SOURCE: New Journal of Chemistry (1992), 16(5), 643-5  
 CODEN: NJCHE5; ISSN: 0398-9836  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

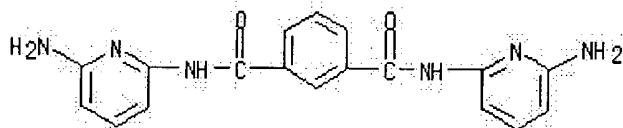
AB The synthesis and complexation properties of a porphyrin-contg. receptor for barbiturates are reported. 1H NMR methods are used to study the interaction of different barbiturates with the receptor and the structure of the complex is shown to be dependent on the size of substituents in the 5,5-positions. Complexation places the substrate directly above the porphyrin ring and the possible similarity of this arrangement to the active site of barbiturate-induced cytochrome P 450 is discussed.

IT 112817-57-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (prepn. and reaction of, with porphyrin deriv.)

RN 112817-57-9 HCAPLUS

CN 1,3-Benzenedicarboxamide, N,N'-bis(6-amino-2-pyridinyl)- (9CI) (CA INDEX NAME)

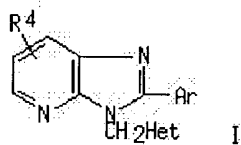


L12 ANSWER 135 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text	Chem References
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ACCESSION NUMBER: 1992:448553 HCAPLUS  
 DOCUMENT NUMBER: 117:48553  
 TITLE: Preparation of 2-aryl-3-(heterocyclylmethyl)-3H-imidazo[4,5-b]pyridines as anxiolytics and anticonvulsants  
 INVENTOR(S): Taylor, Chandler R., Jr.; Moses, Meredith  
 PATENT ASSIGNEE(S): A. H. Robins Co., Inc., USA  
 SOURCE: U.S., 8 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5066654	A	19911119	US 1990-601967	19901022
PRIORITY APPLN. INFO.:			US 1990-601967	19901022
OTHER SOURCE(S):	MARPAT	117:48553		
GI				



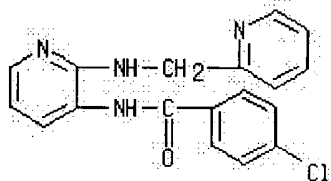
AB Title compds. I [Ar = (substituted) Ph, (substituted) pyridyl; Het = (substituted) imidazolyl, (substituted) oxazolyl, (substituted) pyrimidyl, (substituted) thiazolyl; R4 = H, C16 alkyl, C7-10 aralkyl, C1-6 alkoxy, C2-7 carbalkoxy, halo F3C] or a salt thereof, are prepd. To a stirred soln. of 2-chloro-3-nitropyridine in EtOH were added 2-(aminomethyl)pyridine and Et3N and the resulting mixt. was refluxed for 2 h to give N-(3-nitro-2-pyridinyl)-2-pyridinemethanamine, which was hydrogenated in THF over 5% Pd/charcoal followed by treatment with 4-chlorobenzamide to give 4-chloro-N-[2-[(2-pyridinylmethyl)amino]-3-pyridinyl]benzamide which was refluxed with HOCH2CH2OH for 1.5 h, then stirred at room temp. overnight to give I (Ar = 4-ClC6H4, Het = 2-pyridyl, R4 = H) (II). In an in vitro test, II had an IC50 of 7000 nM in inhibiting [3H]-flunitrazepam binding.

IT 138824-02-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (prepn. and reaction of, in prepn. of anticonvulsants and anxiolytics)

RN 138824-02-9 HCAPLUS

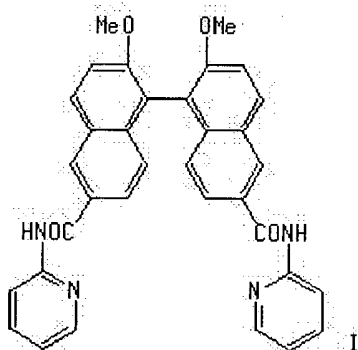
CN Benzamide, 4-chloro-N-[2-[(2-pyridinylmethyl)amino]-3-pyridinyl]- (9CI)  
 (CA INDEX NAME)



L12 ANSWER 136 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
Citing References

ACCESSION NUMBER: 1992:105783 HCAPLUS  
DOCUMENT NUMBER: 116:105783  
TITLE: Chiral recognition of tartaric acid derivatives by a synthetic receptor  
AUTHOR(S): Garcia-Tellado, Fernando; Albert, Jeffrey; Hamilton, Andrew D.  
CORPORATE SOURCE: Dep. Chem., Univ. Pittsburgh, Pittsburgh, PA, 15260, USA  
SOURCE: Journal of the Chemical Society, Chemical Communications (1991), (24), 1761-3  
CODEN: JCCCAT; ISSN: 0022-4936  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI



AB A synthetic receptor (I) contg. two acylaminopyridine groups linked through an R-(-)-binaphthyl spacer was prepd. and shown to bind to the two enantiomeric forms of diacyl tartaric acids by two very different geometries.

IT **139097-80-6P**

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(prepn. and NMR of)

RN **139097-80-6** HCAPLUS

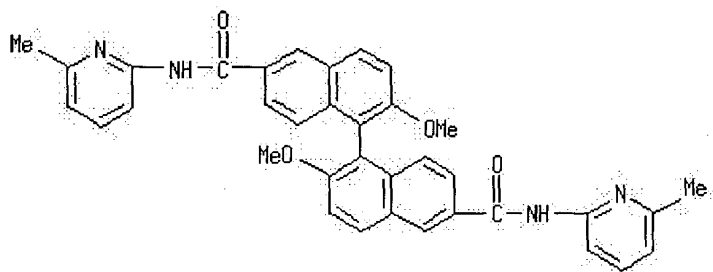
CN Butanedioic acid, 2,3-bis(benzoyloxy)-, [S-(R\*,R\*)]-, compd. with  
(R)-2,2'-dimethoxy-N,N'-bis(6-methyl-2-pyridinyl)[1,1'-binaphthalene]-6,6'-  
dicarboxamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN **139097-79-3**

CMF C36 H30 N4 O4



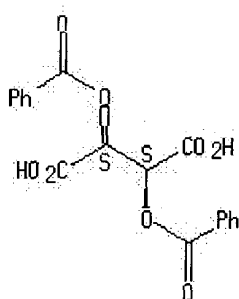


CM 2

CRN 17026-42-5

CMF C18 H14 O8

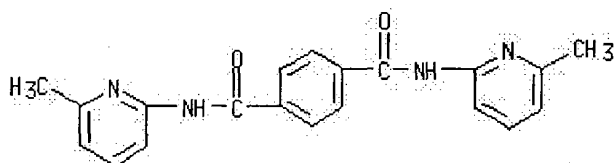
Absolute stereochemistry. Rotation (+).



L12 ANSWER 137 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text	Original References
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ACCESSION NUMBER: 1992:5992 HCAPLUS  
 DOCUMENT NUMBER: 116:5992  
 TITLE: Complexation control of pericyclic reactions: supramolecular effects on the intramolecular Diels-Alder reaction [Erratum to document cited in CA114(3):23229t]  
 AUTHOR(S): Hirst, Simon C.; Hamilton, Andrew D.  
 CORPORATE SOURCE: Dep. Chem., Univ. Pittsburgh, Pittsburgh, PA, 15260, USA  
 SOURCE: Journal of the American Chemical Society (1991), 113(19), 7449  
 CODEN: JACSAT; ISSN: 0002-7863  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB An error in footnote 16 has been cor. The error was not reflected in the abstr. or the index entries.  
 IT 129708-38-9  
 RL: PRP (Properties)  
 (effect of, on intramol. Diels-Alder reaction of furfurylfumaramide (Erratum))  
 RN 129708-38-9 HCAPLUS  
 CN 1,4-Benzenedicarboxamide, N,N'-bis(6-methyl-2-pyridinyl)- (9CI) (CA INDEX NAME)



L12 ANSWER 138 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full  
Text

CHINA  
References

ACCESSION NUMBER: 1991:667282 HCAPLUS  
DOCUMENT NUMBER: 115:267282  
TITLE: Molecular recognition in the solid state: controlled assembly of hydrogen-bonded molecular sheets  
AUTHOR(S): Garcia-Tellado, Fernando; Geib, Steven J.; Goswami, Shyamaprosad; Hamilton, Andrew D.  
CORPORATE SOURCE: Dep. Chem., Univ. Pittsburgh, Pittsburgh, PA, 15260, USA  
SOURCE: Journal of the American Chemical Society (1991), 113(24), 9265-9  
CODEN: JACSAT; ISSN: 0002-7863  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB A novel H-bonding motif for the control of solid-state structures was developed. The motif is based on the H bonding complementarity of carboxylic acids with 2-aminopyridine derivs. Linking 2 aminopyridine groups through a rigid arom. spacer provides a receptor unit that can complex dicarboxylic acids. When there is a good correspondence between the length of the spacer and that of the carboxylic acid, a discrete 1:1 complex is formed. When the dicarboxylic acid is longer than the receptor, an alternating H-bonded cocrystal occurs with the carboxylates on each diacid binding to different receptors. This motif dominates the cocrystal, forming even when the relative lengths of the diacid and the receptor change. Within the constraints of the alternating ribbon structure, the spatial position of the 2 components can be varied in a well-defined and predictable manner. Crystallog. data for the 2-aminopyridine deriv.-dicarboxylic acid complexes are given.

IT 129708-39-0

RL: PRP (Properties)  
(crystal structure of)

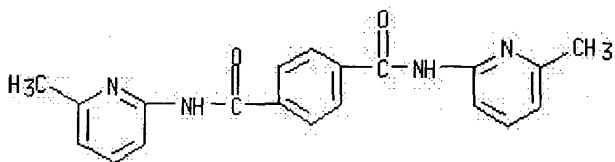
RN 129708-39-0 HCAPLUS

CN Hexanedioic acid, compd. with N,N'-bis(6-methyl-2-pyridinyl)-1,4-benzenedicarboxamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 129708-38-9

CMF C20 H18 N4 O2



CM 2

CRN 124-04-9

CMF C6 H10 O4

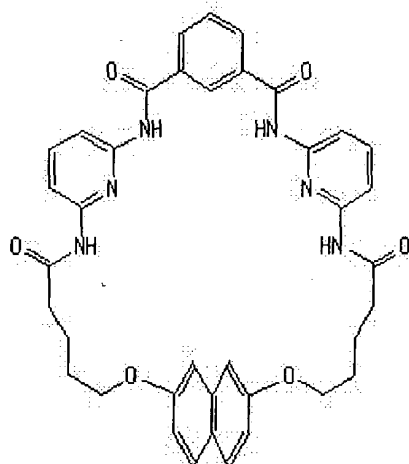
 $\text{HO}_2\text{C}-(\text{CH}_2)_4-\text{CO}_2\text{H}$ 

L12 ANSWER 139 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full  
Text

References

ACCESSION NUMBER: 1991:559114 HCAPLUS  
 DOCUMENT NUMBER: 115:159114  
 TITLE: Hydrogen bonding and molecular recognition:  
 synthetic, complexation, and structural studies on  
 barbiturate binding to an artificial receptor  
 AUTHOR(S): Chang, Suk Kyu; Van Engen, Donna; Fan, Erkang;  
 Hamilton, Andrew D.  
 CORPORATE SOURCE: Dep. Chem., Univ. Pittsburgh, Pittsburgh, PA, 15260,  
 USA  
 SOURCE: Journal of the American Chemical Society (1991),  
 113(20), 7640-5  
 CODEN: JACSAT; ISSN: 0002-7863  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



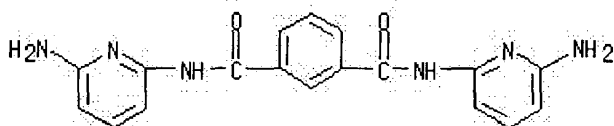
I

AB A series of synthetic receptors, e.g., I, with strong selectivity for the barbiturate family of drugs has been prep'd. The receptor design is based on two 2,6-diaminopyridine groups linked through an isophthalic acid spacer. X-ray crystallog., <sup>1</sup>H NMR spectroscopic, and substrate binding studies confirm that six hydrogen bonds are formed between the receptor and its substrate. The strongest binding ( $K_a \sim 10^5 \text{M}^{-1}$ ) is seen to those substrates contg. the complementary barbituric acid core. Systematic deletion of hydrogen-bonding sites from the receptor and substrate allows an assessment of the contribution of individual binding sites to complexation.

IT **112817-57-9P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (prepn. and macrocyclization of, with naphthalenediol or  
 bis[(chlorocarbonylpropyloxy)phenyl]propane)

RN 112817-57-9 HCAPLUS  
 CN 1,3-Benzenedicarboxamide, N,N'-bis(6-amino-2-pyridinyl)- (9CI) (CA INDEX NAME)



L12 ANSWER 140 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
 Citations References

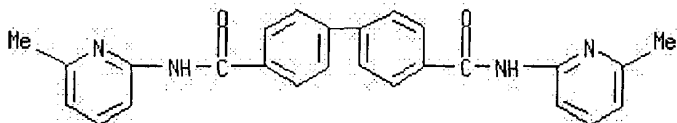
ACCESSION NUMBER: 1991:429867 HCAPLUS  
 DOCUMENT NUMBER: 115:29867  
 TITLE: Conformational selectivity in molecular recognition: the influence of artificial receptors on the cis-trans isomerization of acylprolines  
 AUTHOR(S): Vicent, Cristina; Hirst, Simon C.; Garcia-Tellado, Fernando; Hamilton, Andrew D.  
 CORPORATE SOURCE: Dep. Chem., Univ. Pittsburgh, Pittsburgh, PA, 15260, USA  
 SOURCE: Journal of the American Chemical Society (1991), 113(14), 5466-7  
 CODEN: JACSAT; ISSN: 0002-7863  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The cis-trans isomerization of acylprolines is a process of great importance in biochem. In this paper a study of the effect of different artificial receptors on the rotamer equil. of a series of proline diacids is reported. Receptors with appropriately positioned carboxylate binding groups can selectively bind to one of the two rotamers and influence the equil. by up to 32-fold.

IT 134418-77-2

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (conformational equil. of acylproline deriv. in presence of)

RN 134418-77-2 HCAPLUS  
 CN [1,1'-Biphenyl]-4,4'-dicarboxamide, N,N'-bis(6-methyl-2-pyridinyl)- (9CI) (CA INDEX NAME)

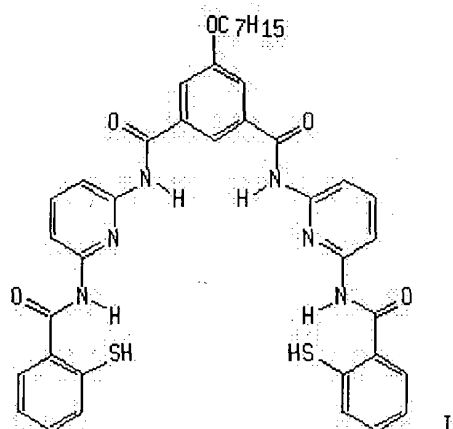


L12 ANSWER 141 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
 Citations References

ACCESSION NUMBER: 1991:80754 HCAPLUS  
 DOCUMENT NUMBER: 114:80754  
 TITLE: Molecular recognition and catalysis: acceleration of acyl-transfer reactions by a hydrogen-bonding receptor  
 AUTHOR(S): Tecilla, Paolo; Hamilton, Andrew D.  
 CORPORATE SOURCE: Dep. Chem., Univ. Pittsburgh, Pittsburgh, PA, 15260, USA  
 SOURCE: Journal of the Chemical Society, Chemical Communications (1990), (18), 1232-4

DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 114:80754  
 GI



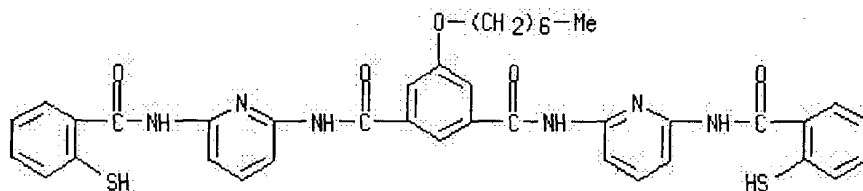
AB An H-bonding receptor contg. an appended thiol (I) was synthesized and shown to cause large rate accelerations (kobs/kuncat >104) in the thiolysis reaction of complementary barbiturate acetate derivs.

IT 131747-09-6P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of, as hydrogen-bonding receptor, acceleration of acyl transfer reactions by)

RN 131747-09-6 HCAPLUS

CN 1,3-Benzenedicarboxamide, 5-(heptyloxy)-N,N'-bis[6-[(2-mercaptopbenzoyl)amino]-2-pyridinyl]- (9CI) (CA INDEX NAME)



L12 ANSWER 142 OF 162 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text Reference

ACCESSION NUMBER: 1991:23229 HCAPLUS  
 DOCUMENT NUMBER: 114:23229  
 TITLE: Complexation control of pericyclic reactions: supramolecular effects on the intramolecular Diels-Alder reaction  
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